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INDIAN INSTITUTE OF PUBLIC HEALTH DELHI

Working towards a healthier India

Post Graduate Diploma in Public Health Management

Course Curriculum Handbook 2012-2013

Table of Contents

OVERVIEW	4
COURSE DESIGN	5
COURSE ADMINISTRATION	6
COURSE FEES	6
PLACEMENT OPPORTUNITY	7
ELIGIBILITY CRITERIA	7
NUMBER OF SEATS	7
COURSE OUTLINE AND ACADEMIC TERMS	8
CREDITS AND CONTENTS	8
TRAINING METHODOLOGY	9
FIELD PRACTICUM	9
PROJECT WORK/ DISSERTATION WRITING	9
EVALUATION SYSTEM	10
NAME OF COURSES	20
COURSE YEAR PLAN 2011-2012 AT A GLANCE	22

MODULES

INTRODUCTION TO COMPUTERS	24
INTRODUCTION TO PUBLIC HEALTH	25
DEMOGRAPHY	27
BEHAVIOR AND SOCIAL SCIENCES IN HEALTH	31
EPIDEMIOLOGY	36
HEALTH COMMUNICATION & PROMOTION	40
BIOSTATISTICS	49
OPERATIONS RESEARCH AND RESEARCH METHODS	54
ENVIRONMENTAL AND OCCUPATIONAL HEALTH	58
COMMUNICABLE DISEASES	62
PUBLIC HEALTH NUTRITION	67

NON-COMMUNICABLE DISEASES	70
ESSENTIALS OF HEALTH ECONOMICS	73
HEALTH FINANCING AND INSURANCE	77
DISEASE SURVEILLANCE	80
HEALTH POLICY	84
LOGISTIC PLANNING AND DRUG DISTRIBUTION	88
URBAN HEALTH	92
PROJECT MANAGEMENT	94
MANAGEMENT OF MCH/RCH	99
HUMAN RESOURCE MANAGEMENT & ORGANIZATIONAL BEHAVIOUR	101
QUALITY, EQUITY & ACCESS TO HEALTH CARE	104
HEALTH MANAGEMENT INFORMATION SYSTEM (HMIS)	108
MANAGEMENT OF NATIONAL HEALTH PROGRAMS	111
HEALTH SYSTEMS AND HEALTH SECTOR REFORMS	114
FINANCIAL MANAGEMENT	118

OVERVIEW

The public health challenges being faced by India call for capacity development at the levels of both the Central and State health systems. The need of the hour is therefore to position qualified professionals who can skilfully plan, execute and monitor national health policies and programmes, supervise the public health workforce, fully assess the dimensions of public health issues and devise appropriate strategies to meet emerging managerial challenges in the health system.

The need for qualified professionals has already been envisioned in the National Rural Health Mission under the Indian Public Health Standards guidelines. It is planned that the public health managers would oversee a range of functions ranging from community based disease surveillance, problem solving applications of epidemiologic principles and; participation in programme planning, implementation, monitoring and evaluation. The managers would also possess adequate understanding of health behaviour to design and target effective health education/advocacy campaigns. This capacity generation is critical at all levels of the health system to meet the MDG targets based on a primary health care approach.

The development of managerial competencies is presently not a part of the formal medical/para-medical educational system. The standard MBBS, MD (PSM) and DPH programmes offered at medical colleges do not impart the managerial skills and competencies expected from public health managers at sub-district, District or State level. Hence, there is an urgent need to devise programmes that would impart this knowledge and skills to address and resolve key health management challenges.

A number of institutions across the country have begun to offer public health related educational and training programmes beyond the standard, MCI-recognised MD (PSM) and DPH programmes. This includes Masters Program in Public Health/Health Administration as well as Diploma courses and short programs to address specific functional areas like surveillance, field epidemiology etc. However, these courses have a limited impact in enhancing the capacity of the public health managerial workforce due to the following reasons:

Issues of Scale: The number of qualified public health personnel produced in various programmes is still quite small – typically, institutions like the Achuta Menon Centre for Health Sciences at Sri

Chitra Tirunal, Trivandrum; the Tata Institute of Social Sciences, Mumbai; the Indian Institute of Health Management & Research, Jaipur etc, have an annual intake of 25-30 participants in their 2 year public health/health administration programmes.

Continuing need to build public health capacity: Fresh candidates with MPH/health administration qualifications, particularly from the non-medical stream, are generally not getting inducted into the public health workforce in most States – only a few States have recently started recruiting persons with such qualifications on contractual employment, under the NRHM. The number of persons with such qualifications in the public health workforce has, not achieved a critical mass to cause an impact on the whole system.

Meeting in service capacity building needs: The orientation and content of conventional public health training programmes is also often limited and needs to be specifically tailored to the needs of in service capacity building. Many States like Gujarat and Maharashtra are deputing health services personnel to acquire MPH qualifications and several individual functionaries have undergone programmes like the MHA on their own accord. The numbers are generally quite small. The duration of such programmes and costs involved to State Governments would stand in the way of such long term programmes offering the scope for the large scale capacity up gradation required by the public health services.

In view of the above factors, it is assessed that for a substantial public health management capacity enhancement within a short time, State Governments need to be offered a viable option which would enable them to train large numbers of in-service personnel. The proposed Post graduate Diploma in Public Health Management has been designed keeping in view the urgent needs of managing the Indian health system.

The following are the suggested modalities for the course:

Course design

The course is designed as a 1-year PG Diploma programme focusing on management of public health services. The course structure is planned in a modular manner requiring ninet months institution-based teaching in combination with extensive field based project work over the remaining period.

Course administration

It is proposed that a network of academic institutions* across the country would offer the course as a fully residential programme. Ten Institutions*; Mahatma Gandhi Institute of Medical Sciences – Wardha (MGIMS); Indian Institute of Public Health – Gandhinagar (IIPH- G); All India Institute of Hygiene &Public Health (AIIH&PH)- Kolkata; National Institute of Health & Family Welfare (NIHFW) – New Delhi; Indian Institute of Public Health –Delhi; Post Graduate Institute of Medical Education & Research, Chandigarh, Jawaharlal Institute of Post Graduate Medical Education & Research, Puducherry, IIPH- Bhubaneshwar, Indian Institute of Public Health Hyderabad and SIHMC Gwalior would conduct the programme.

DPHM HIGHLIGHTS

An innovative feature of this Diploma is its partnership based approach. It has been guided by the MOH, GOI over the past nine months and leading public health academics and practitioners have developed an innovative and applied course structure and content that is need based and context specific. This was also based on a review of existing courses in the country and an understanding of gaps in ongoing public health management training. A common structure of course modules, shared teaching resources such as through e learning modules, and entrance and evaluation modalities have been shaped by experts in partner institutions. Experts from the Indian Institute of Management, Ahmedabad; Tata Institute of Social Sciences, Mumbai; Faculty of Management Sciences, Delhi University, the National Institute of Communicable Disease, Government of India and other leading institutions have also contributed to providing their expertise in several specialised areas of this course. Leading national and International academics & practitioners would also be invited to contribute to teaching specific course modules and lectures as per the needs of the partner institutions. Preferences will be given to participant nominations from EAG states.

Course Fees

A fee amounting to Rs. 2.5 lakhs will be charged per participant nominated by the Govt. The course fee for self sponsored candidate will be 2 lakhs per candidate. This fee will cover institutional costs in the provision of residential facilities, food and course material. It is proposed that the Ten institutions along with the Ministry of Health and Family Welfare, Government of India should

actively promote the program for the first few years as a Public Health Development/NRHM-linked initiative.

Placement Opportunity

The development of capacity building in public health management would potentially lead to the creation of a cadre structure for public health managers from the Block/CHC level up to the State level. The course would offer a window of opportunity to encourage States and Centre to move towards clearly delineating a specialized public health cadre, which is being recognized as an essential need. The proposed PG Diploma in Public Health Management could be considered as a management qualification for recruitment/promotion to jobs in the health services.

In later years, it is envisaged that induction from non government stakeholders would be widened. Participants undergoing this training would have the potential to occupy key positions in municipal bodies, international agencies and also senior project positions.

Eligibility criteria

The course would be open to:

- In-service candidates working in central, state and local governments with at least two to three years of service in the health sector
- Applicants should have MBBS, BDS or B.Sc in nursing/ health science/ natural sciences or B.A. in social sciences or equivalent qualification and involved either in:
    - public health activities at community, hospital or district level,
    - in directorates of health services, public health or family welfare
    - in other health-related organizations.

Preference will be given to medical doctors/ in-service candidates nominated by the government for the program.

The participants have to be nominated or deputed by their respective organizations for full one year duration of the course. Participants in the course will not be on regular service/posting throughout the duration of the programme.

Number of Seats

In the coming academic year (2012-13), it is envisaged that the SIHMC Gwalior would offer 50 seats, IIPH- Delhi, IIPH-Hyderbad, NIHFW and IIPH- Bhubaneswar, would offer 40 seats, AIIH&PH, IIPH-Gandhinagar would offer 35 seats, MGIMS & JIPMER would offer 20 seats and PGIMER Chandigarh

would offer 10 seats for this DPHM. Preferences will be given to participant nominations from EAG states.

Table 1: Proposed allocation of seats and states by the Government for the year 2011-12

S. No.	Name of the Institution	No. of seats	Affiliated states
1	All India Institute of Hygiene and Public Health(AIIH &PH), Kolkata	35	West Bengal, Sikkim, Assam, Tripura and A&N Islands
2	Mahatma Gandhi Institute of Medical Science(MGIMS), Sewagram	20	Maharashtra, Goa, D&N Haveli and Daman&Diu
3	Indian Institute of Public Health, Gandhinagar	35	Gujarat, Madhya Pradesh
4	National Institute of Health and Family Welfare, New Delhi	30+10*	UP, Rajasthan, Uttarakhand and J&K
5	Indian Institute of Public Health(IIPH), Delhi	40	Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Arunachal Pradesh and Delhi
6	Indian Institute of Public Health(IIPH), Hyderabad	40	Andhra Pradesh, Karnataka and Lakshadweep
7	Jawahar Lal Institute of Post Gradaute Medical Education and Research(JIPMER), Puducherry	20	Tamil Nadu, Kerala and Puducherry
8	Indian Institute of Public Health(IIPH), Bhubaneswar	40	Orissa and Chhattisgarh
9	SIHMC, Gwalior	50	Madhya Pradesh**
10	PGIMER Chandigarh	10	Punjab, Haryana, H. P. and Chandigarh

The figures mentioned in the above table are Government sponsored candidates. Over and above, individual institutions can admit self sponsored candidates based on their capabilities.

Course Outline and Academic terms

The academic year is divided into four terms of three months duration. The first three terms will be devoted for teaching and the final term will be devoted for project work.

Credits and contents

The PGDPHM is a 35 credit program. 23 credits have been distributed over 28 modules and 12 credits have been allotted for the project work. The program is structured on a multi disciplinary

curriculum. The disciplines included in this program focus on management of public health, biostatistics, demography, epidemiology, behavioural and social sciences, health communication and promotion, human resource management, finance management, health economics and policy, equity and health management information system.

Training Methodology

This course utilizes a variety of teaching/learning techniques, including seminars, journal clubs, collaborative learning, group discussions, case studies, lecture discussions, participant assignments, hands-on training on computers, visits to organizations of public health interest, field work, practicum and field projects. Classes are organised in a Case based format with reading assignments, requiring pre-class preparation for case discussion. Class discussion among participants, moderated by the instructors, is encouraged. Some assignments and class discussion may incorporate web-based instruction including e-lectures.

Study materials include subject guides, readers, textbooks, CD-ROMs/DVDs/additional computer software (e.g. Stata, SPSS, EpiInfo), audio/video cassettes, handbooks, case-studies and notes.

Field Practicum

A major strength of the programme is in providing participants with opportunities to apply learning directly within the community setting. The applied research component serves to ground trainees in "real world" public health management applications. The field training/project work would be designed as problem based learning modules, which could include subjects like the following:

- Joint Project: Community Diagnosis and identification of health priorities
- Management
- Small Group Project: Knowledge-Attitude-Practice study on a selected health issue
- Study of organization & functioning of public health organization – Sub centre, PHC, CHC & District Health Office

Project work/ Dissertation writing

Each participant, working under close guidance of a faculty advisor, will develop a major project as part of the course work. The project will be carried out over a period of 3 months constituting the final term. The participant will be supervised by a faculty advisor. The experience has three primary components: a protocol, a written project paper, and an oral presentation. The

participant will be evaluated concurrently on the study protocol, while the study is in progress and terminally on the report.

Th students can choose between doing an independent project or an internship. In both the cases the students would get an opportunity to apply the skills developed during the coursework on a real life Public Health problem

The protocol will be framed between the student and the faculty advisor and will be preferably based in the setting of the participant's area of functioning in the health service setup. The protocol will be formally designed and the draft will be submitted for review. The review will be conducted by a formally designated committee for this process and will perform an ethical and a feasibility review of the work plan. Necessary changes if any will be conveyed to the participant who can be requested to resubmit to a repeat review till the approval is obtained.

The study plan after approval will be executed by the participant during the allotted three months (2 months for data collection & 1 month for analysis and documentation) for project work. Any difficulties that arise during the project will be reported and suggestions sought from the faculty advisor.

The student may also choose to do an internship with a development organisation in any chosen field of Public Health. The host institution would facilitate the process of identifying a suitable organisation for the student. An area of work would be developed in consultation with the student, the faculty advisor and the host organisation.

The dissertation writing will include the following headings; Introduction, objectives, review of literature, management challenges, methodology, results and observations, discussion and conclusion/ recommendations.

Detailed instruction related to the completion of the project work would be provided by the respective institutes/ Detailed instruction related to the completion of the project work is provided later on this handbook.

Evaluation system

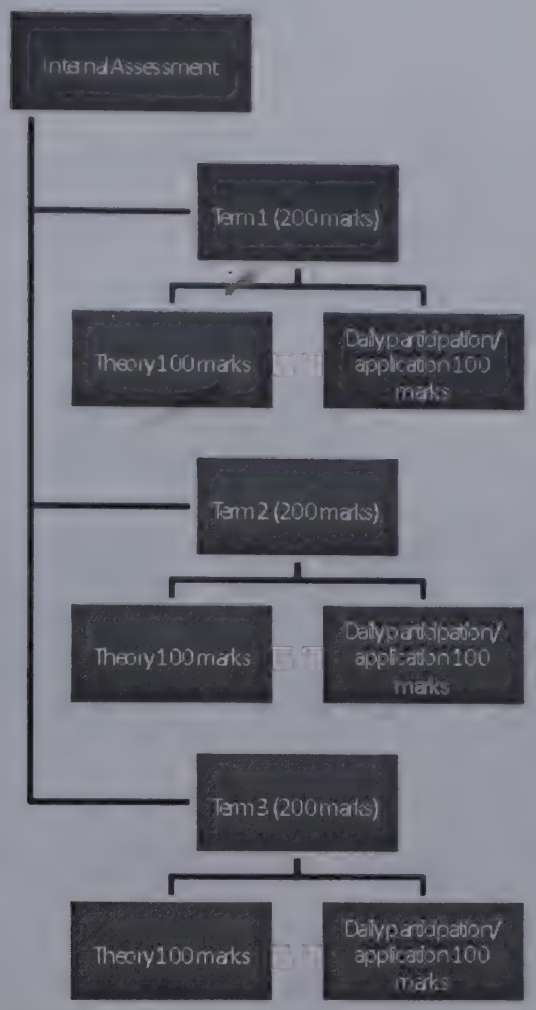
Participant evaluation will comprise of internal evaluation during course work and performance in the term examinations.

- Internal evaluation will be conducted at the end of each term. This will comprise of evaluation of the theoretical knowledge and daily participation/ application skills of the candidates.
    - The daily participation/ application skills of the candidates worth 100 marks will be assessed by the course facilitators. This assessment would be based on class participation, assignments, class presentations or a course evaluation test.
    - The theoretical skills will be assessed by a term-ending examination of 100 marks that covers the modules taught during the term.
    - Thus, there will be internal evaluation worth 200 marks (100 theory + 100 daily participation/ application skills) at the end of each term. This will total to 600 marks (300 theory and 300 practical) after 3 terms during the entire course.
    - The marks will then be expressed out of 400(200 for theory and 200 for daily participatio.application) for the final marks. Thus the internal Assessment would amount to 40% of the final marks.The candidate must obtain a minimum of 50% in th eiNternal Assessment (200 out of 400) to be eligible to sit for the final examination.
- Project work will be allotted 175 marks and a student will be permitted to appear for the final term examination only after he/ she has scored 50% in his/ her project work.
- The final examination will comprise of a theory exam and a practical assessment/ viva-voce.
- 3 theory papers of 75 marks each (constituting 225 marks) will be administered.
- Four examiners will conduct the practical examination.
    - Two examiners out of four will be internal examiners from the institute. Of the remaining 2 external examiners, 1 examiner may be from a partner institute and 1 examiner may be from another institute.
    - Practical exercises of 30 marks each will be administered in Epidemiology, Biostatistics, Health Management and Health Promotion/Communication (constituting 120 marks) will be administered.
    - A viva-voce of 80 marks (40 marks general viva and 40 marks from the project work) will also be conducted.
- Thus, the final examination will be worth 225 marks for theory and 200 marks for practical assessment/ viva-voce. The marks of internal assessment from theory and application skills will be added to the final examination marks at this stage.
- Thus, participants will be graded out of 1000 marks at the end of 1 year (425 marks for theory, 400 marks for practical assessment and 175 marks project work).

- A participant will have to secure at least 50% individually in the theory and practical assessment for obtaining the diploma. The participants securing more than 75% will be deemed to have obtained the degree with honours.

Schematic representation

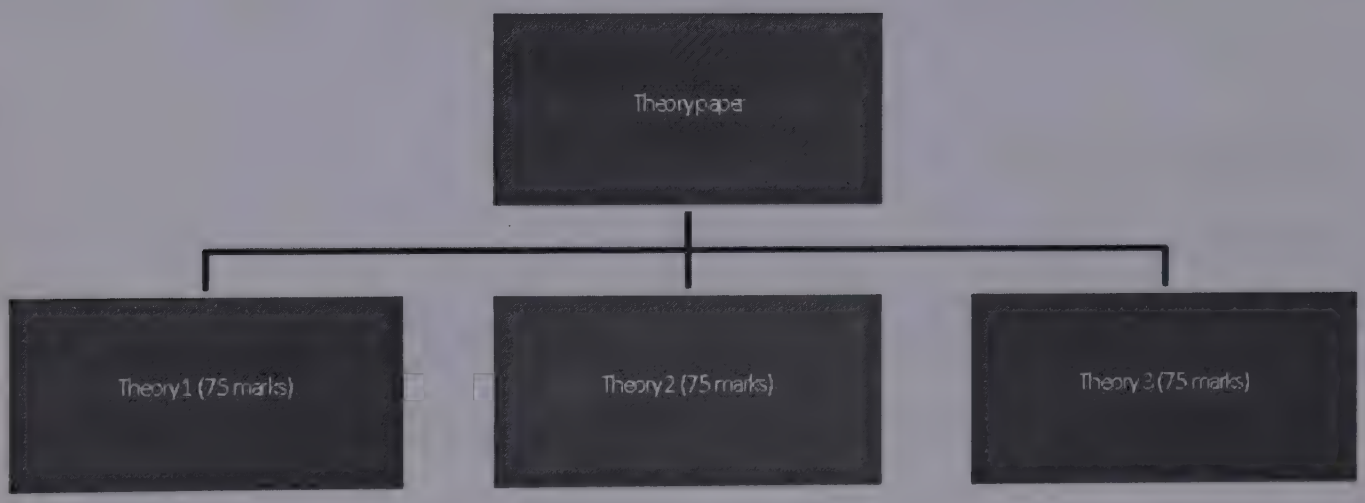
1. Internal evaluation



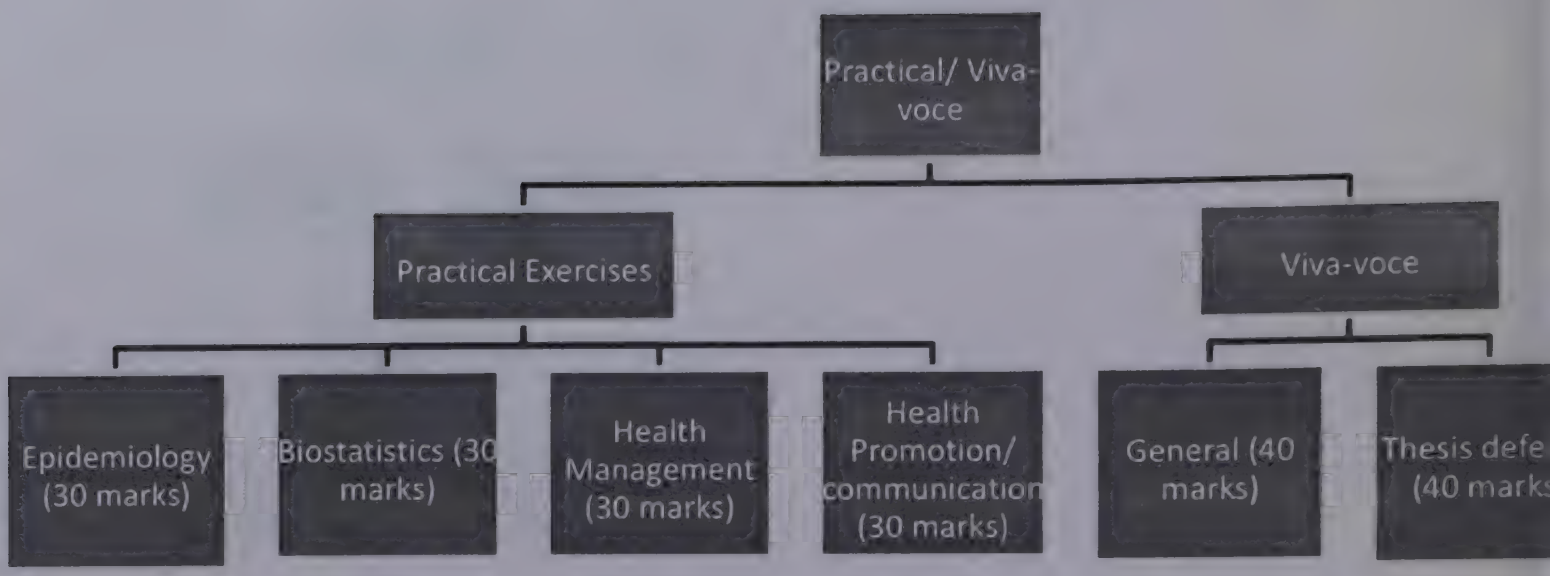
Internal assessment of theory 300 marks expressed out of 200.

Internal assessment of daily participation/ application300 expressed out of 200.

2. Final Examination = Theory + Practical Assessment



Total theory assessment = 225 + 200 (from internal assessment) = 425



Total practical assessment = 200 + 200 (from internal assessment) = 400

Final Marks: Total theory assessment (out of 425) + Total practical assessment (out of 400) + Total project work (out of 175) = 1000 marks

Project work

The project report will be evaluated for its content, analysis, interpretation of the data and the conclusions derived thereof. Objective criteria will be used for the same and the appropriate credits allotted. A presentation of the conducted work will be performed for assessment and appropriately evaluated.

Course Administration

Admission

Students may be administered to the course through two avenues:

1. Students nominated by the State Governments Directly to the designated institutes.

The State Governments would nominate candidates for the course to the respective institutes as decided by the Government of India. The States are free to follow their own selection process for the nominations. The institutes are free to accept or reject candidates nominated by the States based on a transparent eligibility criterai, though efforts would be made to accommodate all candidates nominated form the State Governments.

2. Self Sponsored candidates applying directly to the institutes

Interested candidates, eligible for the course, may apply directly to the institutes for consideration for admission. Shortlisted would be called for a personal/telephonic interview following which offers would be based on a merit list of candidates.

Deails of admission requirements would be mentioned in the offer letter. Candidates registering within the date mentioned in the offer letter would be offered a confirmed seat in the course. Seats of candidates who fail to register within the given date would be offered to waitlisted candidates on the merit list.

Withdrawal of admission

A candidate who has been admitted to the course on payment of full fees may apply for withdrawal from the course before the commencement of the course. Withdrawal would be granted on a case to case basis on the basis of the merits of the case. An appropriate amount (as decided by the Institute administration) may be deducted form the fees deposited on account of administrative expenses. No withdrawal would be granted once the course has commenced.

Course Commencement

The Course would commence on the designated date for the year as mentioned in the course schedule. Students must report to the institute on the date specified for registration.

Reimbursement of expenses

State sponsored candidates shall be reimbursed for their travel expenses for 3 trips from their place of posting to the Institute during the entire course. Details of reimbursement are as follows:

X

X

Candidadates will have to support original tickets and proof of expenses to the institute within the designated date, as specified by the Program Administration team of the institute in the prescribed format. All payment would be based on actual expenses supported by original evidence of payment.

Self sponsored candidates will not eligible for any reimbursements.

Attendance

The students are required to maintain a minimum of 80% attendance in each term. Students with less than 80% attendance will not be allowed to sit for the term exams.

Students will have to take permission for leave from the Course Coordinator, if necessary. Such permission would be granted on a case to case basis.

State sponsored candidates, who are Government employees will have to follow their service rules as far as their leave eligibility is concerned. A statement of days of attendance will be send to their headquarters on a monthly basis.

Examinations

The details of the evaluation system has been mentioned in the relevant section. Every student must obtain a minimum of 50% marks in each Terminal examination.

Results will be declared within 15 days of completion of examinations. The results will be communicated to the students individually.

A supplementary examination would be organised would be organised each term to enable students who have failed to secure the minimum marks required to clear the exam. Any student who has not been able to sit for the term exams may also be allowed to sit for the supplementary examination after obtaining special permission from the Course Coordinator. Such permission must be sought before the main Terminal Examination. Permission would be granted on a case to case basis based on the merit of the case. A supplementary Examination charge of Rs.1,000/- will be charged from each student appearing for the Supplementary Examination.

Supplementary examinations for each term would be conducted before the completion of classes of the following term.

Any student who fails in the final examinations will have to appear in the Final Examination of the following year. A re-examination fee of Rs. 2000/- will be charged from the student.

Reassessment of Examination papers

Term Exams

In case a student is unhappy with the marks allotted for the term examination, s/he may apply for being allowed to see the corrected answer script. The student may subsequently apply for a reassessment of section (module) of the answer script. A reassessment fee of Rs.100/- per section

(module) would be charged from the student. Results of the reassessment would be communicated and may be discusses with the student by the respective faculty. The assessment of the institute on the reassessment would be binding on the student. Only one reassessment per section would be permitted.

Final Exams

Review and reassessment facility would be made available only for the written theory and practical examinations of the Final Exam.

A student who is unhappy with the results of Final exams may apply to being allowed to see the corrected answer script. Subsequently, the student may request for a reassessment of the paper. A reassessment fee of Rs.500/- per paper would be charged from the student. The institute would select an examiner and arrange for the paper to be reassessed. The result would be communicated to the student and the institute may facilitate a discussion on the paper between the examiner and the student, if feasible. The result of the reassessment would be binding on the student.

Code of conduct

Students must maintain conducive behaviour for learning within the institute. Any breach of discipline would lead to serious consequences including expulsion form the course. The Institute maintains an absolute no- tolerance policy regarding the following:

1. Sexual Harrasment: The Institute has a committee for addressing issues related to sexual harrasment and all such cases would be referred to this committee and action taken as per laid down norms. All students are advised to get a copy of the policy from the Program department and educate themselves on it.
2. Plagiarism: Students must follow ethical academic practices. Any issues of plagiarism would be dealt with sternly.
3. Smoking and consumption of tobacco related/intoxicating substance: The institute is a no-smoking campus and consumption of any tobacco related products or any intoxicating substance is strictly prohibited.
4. Misbehavior in class or in the campus: Any form of misbaviour in class or in campus would be treated as disciplinary issue and would be dealt with sternly.

Project guidelines All students enrolled in the PGDPHM course are mandatorily required to undertake a dissertation project for the past 3 months of the course. This dissertation may be in the

form of an independent project or an internship with another organization. The project is expected to enable the student to apply learnt knowledge during the course work to an practical work situation. The project is expected to enhance the learning of the students by providing the necessary practical exposure to field situation. The dissertation would aim to improve the managerial skills of the students on managing Public Health programs.

Internship

A student may choose to do an internship with an organization for a period of 3 months. During the period the student would work within the organization on an assignment mutually decided by the student and the advisors in the organisation and the institute. The student may also be asked to work in a previously running project, but should have a definite objective to achieve by the end of the internship period.

This set of guidelines is for PGDPHM students who have chosen to do an internship with another organization in order to fulfill the dissertation requirement of the course.

The student would identify a secondary advisor from the host organization who would guide her/him on a daily basis. A dissertation topic would have to be decided in consultation with the Primary and Secondary advisor within 1 week of starting the internship. Once the topic is finalized a research/project proposal would have to be written up and submitted to the primary advisor within the date specified. Periodic reports would have to be submitted as per the Milestone plan. The student would follow the norms and policies of the host organization for the duration of the internship. The student is advised to be in regular touch with the primary advisor even beyond the formal reporting requirements.

The following is the milestone plan for the internship (These dates would have to be finalized for the academic year):

1. Report to host organization
2. Be assigned an Internship advisor at the host organization
3. Develop a primary synopsis of intended area of work
4. Agree and submit a final Research/project proposal
5. Submit 1st Monthly report
6. Submit 2nd Monthly report
7. Report back to IIPH
8. Submission of Final report

Students engaging in independent project work (other than Internship)

Students may also engage in independent project work based on their interests. Any area of work may be chosen. Projects would have to display improvement in Managerial quality. **Primary scientific research is not encouraged as part of this dissertation.** Indicative project objectives would include:

- Finding a solution to a pre existing problem in implementation of a program
- Improvement in the way services are provided
- Identification of problems in service delivery
- Program Planning
- Identifying program costs
- Identifying bottle necks
- Needs Assessment studies

The above list is indicative and by no means substantive.

The project can be undertaken based on primary as well as secondary data.

While designing the project primary focus should be on feasibility of completion and usefulness of the results.

Students engaging in independent project work would develop their project topics in consultation with their faculty advisors. The milestones for such projects would be as follows:

3. Develop a primary synopsis of intended area of work

4. Agree and submit a final Research/project proposal

5. Submit 1st Monthly report

6. Submit 2nd Monthly report

7. Report back to the institute

8. Submission of Final report

Formats for reports:

I. Research/Project Proposal

The proposal would be maximum 3 pages long and would cover the following sections:

1. Background
2. Brief Description of problem/issue
3. Proposed areas of work
4. Work plan
5. Expected outputs

II. Monthly reports

The monthly report would be maximum 5 pages long and cover the following sections:

1. Activities undertaken and results
2. Observations/experiences
3. Problems faced and how they were overcome
4. Achievement against plan submitted
5. Plan for the next month

III. Final Dissertation report

The Final Dissertation report would be a comprehensive report (min 4000 and max 5000 words). This document may be prepared at the institute after completion of the internship period with help from the advisor. The students are strongly advised to start work on the document early in the internship period to ensure quality. The document would cover the following sections:

1. Introduction
2. Objectives
3. Review of Literature
4. Management Challenges/Issues addressed
5. Methods/Activities undertaken/interventions
6. Results and observations
7. Discussion
8. Conclusion/recommendation
9. References

* All documents would have to be computer typed with the following formatting requirement:

- Font: Arial

- Spacing: single

- Size: 12 pts

- All around margin of 1 cm

- Allignment: Justified

All documents will have to be submitted in soft version in a .doc or .docx format. Final submission of the Dissertation report may be made in a .pdf format

All reports will have to be hard bound before submission. The Program Managers of the institute would help in identifying vendors who can do this for students at a price. Students are also free to get it done from their own sources on standard specifications.

Name of courses

Course	Credits
1. Essentials of Computers	

2. Introduction to Public Health Management	½
3. Demography	1
4. Behavioral and Social Sciences in Health	1
5. Organizational Behavior & HRM	2
6. Epidemiology	2
7. Health Communication and Promotion	1
8. Biostatistics	1
9. Environmental and Occupational Health	1
10. Communicable Diseases	1
11. Public Health Nutrition	
12. Non-Communicable Diseases	1
13. Essentials of Health Economics	1
14. Health Financing and insurance	1
15. Disease Surveillance	
16. Health Policy and Health Care Planning	1
17. Operations Research & Research Methodology	2
18. Logistic Planning and Drug distribution	
19. Urban Health	½
20. Project Management and Strategic Management	1
21. Management of MCH/RCH	1
22. Quality, Equity and Access to Health Care	1
23. Health Management Information systems	1
24. National Health Programs	
25. NRHM & Health Sector Reforms	1
26. Financial Management	1
27. Dissertation preparation	

Total Number of Credits for teaching: 23 Credits + 12 credits for project

1 Credit would approximately equal 30 hours of teaching/training

Training includes actual time spent in class by the faculty and will constitute at least 70%

The academic calendar would have about 20 working days in a month (6 hours teaching per day)

Total: 8 months of teaching (excluding dissertation writing, submission etc.)

Course Year plan 2012-2013 at a Glance

Module – 1	Module -2	Dates
Orientation to Institute and programme		27 August
Essentials of Computers		28 Aug – 7 Sep
Introduction to Public Health		10 – 21 Sep
	Health systems and Health Sector reforms	10 – 14 Sep
	NRHM and National Health Programs	17 – 21 Sep
Project Management	Communicable Diseases	24 Sep – 5 Oct
Non Communicable Diseases	HMIS	8 - 12 Oct
Health Communication and Promotion	Quality, Equity and Access to Health Services	15 – 30 Oct
Term Exam I		2nd November
Term Break/Diwali (5 – 16 Nov)		
Urban Health	Logistic Planning and Drug Distribution	19 - 30 Nov
Behavioral and Social Sciences	Human Resource Management and Organizational Behavior	3 – 14 Dec
Management of MCH/RCH		17 – 19 Dec
Term Exam II		21 Dec
Christmas and Winter vacation (24 Dec – 11th Jan)		
Epidemiology	Biostatistics	14 Jan – 1st Feb
Diseases Surveillance	Health Financing and Insurance	4 – 8 Feb
Financial Management	Public Health Nutrition	11 – 22 Feb
Demography	Essentials of Health Economics	25 Feb – 1 Mar
Environmental Health	Research Methods and Operations Research	4 - 15 Mar
Health Policy and Health Care Planning	Health Policy and Health care planning	18 – 22 Mar
Preparation for Dissertation/Dissertation workshop		26 – 29 Mar
Dissertation workshop – Research Methods		
Term Exam III		25 Mar
Field Work (Data Collection)		1 April - 15 June
Data Analysis, Report Writing		16 June - 30 June
Submission, Final Exam and Viva		July

Partner institutes will have a freedom to split multiple credit courses into smaller sub units as per requirement and also to make minor changes in course contents.

Teaching methods - Abbreviations

The following teaching methods will be utilized as a part of the DPHM course.

Teaching method	Abbreviation
Seminar	S
Journal club	JC
Report writing	RW
Article review	AR
Collaborative learning	CL
Group discussion	GD
Case study	CS
Lecture	L
Panel discussion	PD
Participant assignments	PA
Hands-on training on computers	C
Visits to organizations	V
Field work	FW
Field projects	FP

MODULES

Introduction to Computers

Overview

This course aims to help participants to get familiar with use of basic applications in computers and internet. It will be taught in the second week of the programme over a week.

Learning Goals

At the end of the course students are expected to

1. Gain knowledge and skill of using essential program in computers including a word processor, spread sheet, a presentation tool.
2. Gain knowledge and skill of using internet including e-mail, web-browsing and selected search engines
3. Gain knowledge and skill of using specific search engines and web-links for use of online libraries, journals etc

List of topics

Date	Topic		Instructor
8th Aug'11	Introduction to computers, using internet/e-mails	Mini lecture/lab session	BR & YK
9th Aug'11	MS word	Lab session	BR
10th Aug'11	MS excel	Lab session	BR
11th Aug'11	MS Powerpoint presentations	Lab session	BR
12th Aug'11	Academic skills: literature search-use of search engine, referencing,	Mini lecture/lab session	BR
16th Aug'11	Working on specific topic for literature review	Lab session	BR
17th Aug'11	Student's presentation & review	Class room presentation	BR

BR: Babita Rajkumari; YK: Mr Yogesh Kumar

Course Evaluation

Activity	% of Marks
Short take-home exercises	50%
Final lab assignment	50%

Introduction to Public Health

Course overview

Public health is part of our everyday lives, yet we have limited understanding of the potential of public health and its role to protect, promote and improve the health of populations. Public health approaches are distinct from clinical medicine and impact the health of entire populations. This course will introduce the students to the basics of public health, its determinants and dimensions with a focus on socioeconomic factors and related disparities in health. It will also delve into the history and evolution of public health. The history and evolution of public health in India and globally, the health indicators and health profile of India are described. Various case studies will be used to illustrate the above. Important public health challenges (infectious diseases(including vector borne, food and water borne disease) non-communicable diseases including use of tobacco, reproductive health, children's health, environmental pollutants and environmental health, injuries and accidents,) will be used to demonstrate the fundamental public health principles needed to identify public health problems and the required multidisciplinary, multi-sectoral public health responses to them. Socio-economic inequities and the related disparities in health, will be discussed.

Learning Objectives: Upon completion of this course, students will be able to:

1. Define public health; identify its goals and functions.
2. Enlist and comprehend factors that influence health of populations.
3. Discuss various approaches and strategies for health promotion and disease prevention in populations.
4. Describe the health burden
5. Trace the history and evolution of public health
6. Recognize and realize the potential of public health to impact and influence the health of populations.
7. Trace the history and evolution of public health and health systems in India

8. Describe the present day public health challenges (NCD including use of tobacco, IDs-food and water borne disease, MCH, vector born diseases, environmental pollutants, injuries and accidents) and ways to combat it.

9. Realize the multi-disciplinary nature of Public Health approaches and how public health approaches are different from clinical medicine. Differentiate public health from clinical medicine.

10. Realize the role and importance of multi-disciplinary and multi-sectoral approaches required to address public health problems and to sustain health of populations

11. Discuss the impact that health disparities have on public health.

12. Comprehend the power of various public health influences for example, urban planning, environment etc on public health

13. Know the important features of health profile and burden of disease in India.

14. Realize the power on policy in public health

Content Areas which would be covered in the various lectures.

1) Definition of public health/ associated terms.,
2) History and evolution of Public Health
3) Health system in India and other allied sectors
4) Burden of Disease
5) Measuring Health
6) Public health- a multi-disciplinary perspective use example of Non-communicable diseases: framework to explain public health approaches
7) The role of policy in Public health
8) Determinants of health
9) Health Promotion

Assessment: Group presentation/ group seminar

Demography

Course Overview

The course will introduce the student to basic demographic techniques covering size, structure and growth of populations and their importance in public health. The course is designed to acquaint students with basic demographic methods, measures, materials pertaining to fertility, mortality and migration. The emphasis will be on how to utilize online sources of demographic data for different purposes. The course also aims to familiarize students with various types of population programmes, evolution/history of population policy in India along with the socio-economic and cultural factors influencing demographic variations in India. All the important lectures will be followed by practical sessions to make students comfortable with the calculation and interpretation part also.

Learning Objectives

Upon completion of this course, participants will be able to:

1. Understand basic demographic process and demographic cycle
2. Calculate and interpret basic demographic rates
3. Understand and perform demographic calculations at their level of functioning.
4. Link demographic data at the field level with associated public health challenges

Content areas

1) Sources of data in demography
2) Composition, Structure and Growth of Population
3) Demographic measures
   a) Fertility
   b) Mortality

c) Migration

4) Population Projection

5) Issues of urbanization and ageing

6) Population Policies and Program.

Lecture No.	Lecture Topics	Activity
1	Introduction to Demography: Definition, Relation with other discipline Sources of demographic data	Class Lecture Lab session
2	Composition, Structure and Growth of Population : Sex ratio, age dependency ratio, population pyramid, rate and growth of population (natural increase, linear, geometric and exponential)	Class Lecture Lab session
3	Demographic measures – Fertility: Crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, gross reproduction rate, child-women ratio, factors affecting fertility	Class Lecture Lab session
4	Demographic measures – Mortality: Crude death rate, age specific death rate, cause specific death rate, infant mortality rate, maternal mortality rate/ratio, life table concepts	Class lecture Lab session
5	Changing fertility and mortality scenario	Class Lecture Seminar and group discussion
6	Demographic measures – Migration: definition, immigration or in-migration rate, emigration or out-migration rate, net migration rate, methods of measuring internal migration	Class Lecture Lab session
7	Population projections: methods of population projection, World and Indian scenario	Class Lecture Practice Session
8	Issues of urbanization and ageing	Class lecture and discussion

9	Population policies and programmes	Class Lecture and discussion
10	Module Exam	

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Class Participation	5
Assignments	30
Group Presentation	15
Module exam	50

Reading Materials:

Key readings

- Bhende, A.A., and Kanitkar, T, (2003): Principles of Population Studies, Mumbai: Himalaya.
- Sharma Rajendra (2007): Demography and Population Problems. New Delhi, Atlantic.
- Haupt, A. and T. Kane (1998): Population Handbook. 4th International Edition. Washington D.C: Population Reference Bureau
- Palmore, J.A., Gardner, R.W. (1983). Measuring Mortality, Fertility, and Natural Increase: A self teaching guide to elementary measures. Honolulu: The East-West Center.
- Poston, Dudley & Michael Micklin (2005) Handbook of Population. NY: Kluwer
- Raj Hans (1996): Fundamentals of Demography- with special reference to India, Surjeet publications
- Shrivastava, OS (1996): Demography and Population Studies, Vikas publishing house Pvt. Ltd.
- Shryock, H.S. and Siegel, J.S. (1976). The methods and materials of demography. San Diego: Academic Press.

- Srinivasan, K. (1998): Basic Demographic Techniques and Applications. New Delhi: Sage Publications
- Weeks, J.R. (2005) Population: An Introduction to Concepts and Issues. Ninth Edition., Belmont: Wadsworth.

Online Sources of Demographic Data

National Family Health Survey

http://www.nfhsindia.org

The survey provides state and national information for India on: fertility, infant and child mortality, practice of family planning, maternal and child health, reproductive health, nutrition, anaemia, utilization and quality of health and family planning services.

Census of India
http://www.censusindia.gov.in

Type of Data: Demographic information – sex, age, marital status, Education, Economic activity , Migration, Fertility, Mother tongue and other languages known, Caste, Disability etc.

Sample Registration System
http://www.censusindia.gov.in

Type of data- birth rate, death rate fertility & mortality indicators.SRS bulletin provides- state level figure- birth rate, death rate and IMR--- every 6 months

District Level Household and facility Survey (DLHS).
http://www.rchiips.org/

Provide information on family planning, maternal and child health, reproductive health of ever married women and adolescent girls, utilization of maternal and child healthcare services at the district level for India. In addition,DLHS-3 provides information on important interventions of National Rural Health Mission (NRHM).

Demographic and Health Surveys
www.measuredhs.com
DHS data relating to population, health, family planning, nutrition, HIV/AIDS
Population Reference Bureau
www.prb.org/
Contains articles, datasheets, and reports regarding population issues. Information is arranged by regions and by topics, including family planning, gender, and health.

Population Issues Overview
www.unfpa.org/issues/index.htm
Offers an overview of some of the factors related to population issues such as access to family planning, poverty, and lack of education and choices for women.

The World Bank Group: Data by Country
www.worldbank.org/data/countrydata/countrydata.html
Provides data such as population, fertility rate, literacy rate, and other figures related to population for different countries, regions, and income levels.

Behavior and Social Sciences in Health

Course overview

The course 'Social and Behavioural Sciences in Health' aims:

1. To provide a public health perspective that emphasises the role of social, political, economic and psychological factors in constituting health of individuals and groups
2. To understand Indian society, its structure, stratification and diversity in order to acknowledge differentials in health status and identify vulnerable groups
3. To understand 'health' as a distinct entity different from 'medicine'
4. To appreciate the applicability of these learning in designing, implementing and evaluating interventions, communication strategies and research in health

Learning objectives

Upon completing this course on Social and Behavioural Sciences in Health a student will gain following knowledge and skills

1. Learn basic concepts, theories and models from social and behavioural sciences that enhance understanding of public health
2. Gain a critical understanding of relationship between state and its citizens with respect to public health
3. Gain a reflective understanding of role of medicine vis-à-vis public health
4. To relate social, economic, cultural, political and psychological status of individuals and groups with differentials in health status, access to health care, care seeking and risk behaviour and acknowledge the role of these factors while designing health initiatives, undertaking public health and medical research
5. Gain a perspective in public health which believes in health as a right of individuals and groups, and in responsibility of the State in protecting and promoting this right, especially that of the most vulnerable.

Course content

Lecture No	Lectures Topics	Activities
1	Introduction – Course overview	Lecture
2	Introduction to behavioral and social sciences	Lecture
3	Society and Community	Lecture
4	Social Structure and Culture	Lecture
5	Norms and Values – Social Control	Lecture
6	Social Institutions	Lecture
7	Medical systems	Lecture
8	Introduction to Medical Anthropology: Concepts of Medicine, Health, Illness, Sickness	Lecture
9	Models of health seeking behavior	Lecture
10	Social Stratification	Lecture
11	Power, Authority	Lecture
12	Doctor –Patient Relationship	Lecture
13	Decentralization in Health Care Delivery	Lecture
14	Health needs at different stages of life- Social cultural and health program perspective	Lecture
15	Health risk behavior-I	Lecture
16	Psychological processes	Guest lecture
17	Behavioral Assessment	Guest lecture
A	Group work topic- 1	Group work
B	Group work topic- 2	Group work
C	Group work topic-3	Group work
D	Group work topic-4	Group work
E	Group work topic-5	Group work
F	Group work topic-6	Group work
G	Group work topic-7	Group work
*	Wrap up and Evaluation	

Recommended Readings:

1. Annandale, E., The Sociology of Health & Medicine: a Critical Introduction. Polity Press, 1998
2. Bartley, M., Blane, D., and Davey-Smith, G., (eds.)The Sociology of Health Inequalities. Blackwell, 1998
3. Kleinman, Arthur, The Illness Narratives: Suffering, Healing, and The Human Condition, Basic Books, 1988
4. McKeown, Thomas, Medicine in Modern Society, George Allen and Unwin, London, 1965
5. Morrison, Val & Paul Bennett, An Introduction to Health Psychology, Essex: Pearson Education Society, 2006
6. Navarro, Vincent., Policy, Politics, Health and Medicine, Baywood Pub Co, 1983
7. Ogden, Jane, Health Psychology, Berkshire: Open University Press, 2007,
8. Paul, Benjamin (ed.) Health, Culture and Community: Case Studies of Public Reactions to Health Projects., New York: Russell Sage Foundation, 1955
9. Thomas McKeown, The Role of Medicine: Dream, Mirage or Nemesis? Oxford: Blackwell, 1979

Additional Readings / Recommended Readings:

1. Barnoum, Victor., An Introduction to Anthropology, , Published by Dorsey Press, 1971
2. Beals, R., L., and Hoijer, H., An Introduction to Anthropology, Macmillan, 1977.
3. Brommee, A.K Health Psychology: Process and Applications. Chapman and Hall, London, 1989
4. Brown, Phil., (ed.) Perspectives in Medical Sociology, Waveland Press, 2000.
5. Cockerham, William C., Medical Sociology, Prentice Hall, 2003
6. Coreil, J., Bryant, C., and Henderson, J.N., Social and Behavioral Foundations of Public Health. Thousand Oaks, CA: Sage Publications, 2001.
7. Djurfeldt, G. And S. Lindberg, Pills against Poverty: A Study of the Introduction of Western Medicine in a Tamil Village, New Delhi, Oxford and IBH Publication, 1976
8. Foster and Anderson, Medical Anthropology, John Willy & Sons, New York, 1978
9. Gabe J. Bury M. Elston M (2004) 50 Key Concepts in Medical Sociology London: Sage
10. George, Susan, How the Other Half Dies: The Real Reasons for World Hunger, Penguin, 1977
11. Giddens, A., Sociology, Polity Press: Cambridge, 1997
12. Glanz, K., Lewis F. M., & Rimer, B., (eds.) Health behavior and health education: Theory, research, and practice, 3rd ed., San Francisco: Jossey-Bass Publishers, 1990
13. Hart, Nicky, The Sociology of Health and Medicine, Causeway Books, Lancashire, 1985
14. Jeffery, Patricia, et al., Don't marry me to a plowman: Women's everyday lives in rural North India, 1996
15. Jeffery, Patricia, R. Jeffery and A. Lyon, Labour Pains and Labour Power: Women and Child bearing in India, London Zed Books, 1989
16. Kakar, S., Shamans, Mystics and Doctors: A Psychological Inquiry into India and its Healing Traditions, Delhi OUP, 1982
17. Marmot M., Wilkinson R. G., (eds), Social Determinants of Health, Oxford: New York, 1999.
18. Sainath, P., Everybody Loves a good drought, New Delhi: Penguin 1996
19. Shah, Ghansham: Public Health & Urban Development : Plague in Surat
20. Smedley B. D., Syme S. L., (eds), Promoting Health: Intervention Strategies from Social and Behavioral Research, National Academy Press: Washington, DC, 2000.
21. Smelser, N. J., (ed.), Handbook of Sociology, Newbury Park, CA: Sage, 1997

22. Stacey, M., The Sociology of Health and Healing, Routledge, 1988

Assessment:

Assignment	Marks
Internal assessment (Group work + article review*)	100
Term exam	

*Note: Each student is given an article to review in the beginning of the course. Review of article is required to be submitted at the end of the module for evaluation.

Epidemiology

Course overview:

The course provides an introduction to key concepts, methods and topics in epidemiology, as well as some of the statistical methods required to be able to appreciate and appraise epidemiological research. The course focuses on applied aspects of epidemiology in an interactive environment conducive to adult learning and integrating epidemiologic principles with the other streams in public health.

Learning Objectives

Upon completion of this course, participants will be able to:

1. Define and describe the common terminologies used in epidemiology.
2. Comprehend the basic concepts and approaches of epidemiology.
3. Apply the analytical skills to solve a given epidemiological problem or situation.
4. Utilize the epidemiological concepts to critically review scientific literature.
5. Conceptualize the relationship between epidemiology and other disciplines of public health.
6. Design epidemiological studies, based on the strengths and weaknesses of different epidemiological methods, to answer questions of public health practice.
7. Appreciate the application of epidemiology in daily life.
8. Develop a scientific temper and review the evidence before accepting any knowledge.

Content areas

1. Introduction to epidemiology
    a) Historical aspects
    b) Definitions
    c) Basic concepts and overview of terms in use
    d) Formulation and importance of case definition
2. Variations in disease
    a) Time place and person
    b) Applying real / artifact framework
    c) Clustering
3. Measurement of disease frequency
    a) Person-time exposure
    b) Cumulative Incidence
    c) Incidence density
    d) Point prevalence
    e) Period prevalence
    f) Rate and proportion
4. Measures of association and impact
    a) Odds ratio
    b) Risk ratio
    c) Rate ratio
    d) Attributable risk and population attributable risk
    e) Preventable and prevented fractions
5. Natural history of a disease
    a) Steps in natural history of a disease
    b) Application of natural history in disease control
    c) Levels of prevention for specific diseases
    d) Modes of intervention in public health
6. Standardization
    a) Direct standardization
    b) Indirect standardization

c) Standardized mortality ratio

d) Case definition and its influence on prevalence estimates

e) Development of a case definition over time

7. Epidemiological study designs

a) Case series

b) Case reports

c) Ecological studies

d) Cross sectional studies

e) Case control studies

- Basic design and analysis
- Choice of cases and control
- Odds ratio
- Bias in case control studies

f) Cohort studies

- Basic design and analysis
- Relative and attributable risks
- Choice of exposed and unexposed
- Nature of bias in cohort studies

g) Interventional studies

8. Role of chance, bias and confounding

9. Causality

a) Hill's criteria of causality

10. Screening

a) Basic principles in screening

b) Pre-requisites of screening

c) Sensitivity, specificity and predictive values, likelihood ratios

11. Surveillance of diseases

a) Definition

b) Routine data collection systems and surveillance

c) Active and passive surveillance

d) Sentinel surveillance in public health

12. Investigation and management of an outbreak

a) Steps in the investigation of an outbreak

b) Planning an outbreak response

c) IDSP framework

13. Critical appraisal of studies

The module is planned over 45 hours which includes 30 hours of lectures and 15 hours of lab work as detailed below.

EVALUATION

Epidemiology module exam (MCQs + short answers)

Health Communication & Promotion

Health communication and promotion are integral elements of public health practice, and can offer significant contributions to the overall betterment of public health outcomes in a country. They are powerful tools that can bring about change at critical levels – starting from the individual right up till national policies and international forums. Grounded in the acknowledgement of variations inherent to human behaviour, health communication and promotion efforts can be effective means of improving health systems performance and generating public health gains. Aimed as they are at influencing human behaviour, effective health communication and promotion initiatives can be used to address – at least to some extent -- the unpredictability of success in public health programmes.

Despite this recognition of their role in the overall success of public health programmes, there are several challenges that health communication programmes and promotion interventions face in developing countries. India for instance has so much cultural, economic, and social diversity that planning and implementing health communication and promotion efforts can be a daunting task – right from the challenge of language and local socio-cultural contexts to high rates of illiteracy and the serious impact of poverty on human choices as regards health-seeking behaviour. Against this backdrop is the enormity of key public health challenges that India faces -- emerging diseases, the rise of communicable and non-communicable diseases, the water and sanitation scenario and climate-change related illnesses. Urbanization and globalization – through unhealthy behaviors and lifestyles that underlie many of the new threats; and health transition is also leaving its mark on people in rural areas.

The response to these challenges has thus far been limited. This burden of disease is obviously influenced by the interplay of health-related behaviour and the human interface with health and health-related services, which in turn is clearly linked to the state of health literacy and healthy behaviour among individuals. It is therefore self-evident that central to a coordinated, systemic public health response modeled for better public health outcomes would be comprehensive health education shaped by strategic health communication, knowledge management techniques and suitable health promotion interventions that may use adult learning principles based on the need for improved health behaviour through education, training and research. Through this effort, greater information flow and dissemination, the communication of critical public health content and messages resulting in a wider sharing of knowledge than what exists today may be achieved.

In spite of wide acknowledgment that communication of public health information to the public is essential, there has been a lack, or even absence, of emphasis on training and education focus on health communication and promotion resulting in a gap in formal skills among trained public health professionals and those from allied disciplines. For instance, among cadres of MPH graduates, strong foundation courses in health communication theory and practice are inadequate. It is because of this gap in educational training that strategic communication strategies placed within an overall public health response have been either totally missing or seriously deficient.

Addressing the need for specialized skills in health promotion, this module on health communication and promotion (HC&P, two credits, 50 hours) is designed for educating and training in-service public health professionals on designing and implementing health promotion and health communication activities. This course is grounded in the theoretical basis of health communication in the public health context but also attempts to cover the practice of communication, with strong emphasis on "hands-on" applied learning techniques. Crafted as it is within the broad framework of a year-long course on public health management, this module is designed with special focus on the needs of the health managers in conceptualising and communicating appropriate health messages to population groups and designing effective health communication and promotion programmes.

Learning Objectives:

Upon completion of the HC&P module, students will have a better understanding of the entire continuum of health communication and promotion, from concept to action. This module will enable them to frame all public health responses within the context of communicating for better health literacy and for the promotion of health-seeking behaviours. This will further support their routine efforts within the public health management system, and augment the outcomes they work towards. In the ideal case scenario, the course is designed to equip mid-career professionals with skills to design and sustain a programmatic approach to health promotion.

Very broadly, the course will allow students to familiarize themselves with a strategic and rounded approach to health information dissemination, behaviour change communication and the promotion of health through greater community-level literacy. This may facilitate greater mobilization of public action and opinion for improved health status, for it is evident that a historic lack of insight into the

complexities of health communication and promotion has contributed to the sub-optimal performance of health systems.

Since the course targets health managers and is based on adult learning principles, cross-learning is integral to the administration of the course. This means that managers are expected to bring to the training experiences from the programs and initiatives that they have administered or may have come across in their specialization or areas of work.

In specific terms, the module will enable learners to:

1. Develop a clear understanding of the key approaches within health communication and promotion and the role HC&P can play in public health and its management

2. Apply theory-driven communication expertise across all phases of the health communication process, to ensure that health messages are culturally sensitive and appropriate to audience health literacy levels

3. Examine factors (social, behavioral, cultural, political, psychological, historic, economic, moral and ethical) that influence health behavior

4. Sharpen skills in program planning, implementation, and evaluation (formative, process, and outcome evaluation strategies form a scientific base) of communication messages, campaigns, and programs

5. Develop/strengthen public health writing and communication skills

6. Apply and use relevant research methods/tools to their HC&P programmes and interventions

TOPIC	SUB-TOPICS
FUNDAMENTALS OF HEALTH COMMUNICATION	1. What is communication? a) The communication process b) Types of communication c) Channels of communication d) Methods of communication • Individual Approach • Group Approach e) Barriers to effective communication 2. What is health communication and health promotion? a. Definitions b. Understanding health promotion and health

	communication need c. Functions of Heath Communication d. Distinguish health-related behavior by health-related needs e. Difference between health promotion interventions and health promotion program f. Behavior change communication vs. Risk communication **3.** Social and cultural factors affecting the health of populations (the social determinants of health communication) a. Gender b. Equity c. Rights d. Economy e. Customs, traditions, mores f. Education
THEORIES , MODELS, AND APPROACHES TO HEALTH COMMUNICATION	1. Relevance of theoretical approaches in communication interventions and programs. 2. What is the difference between theories, concepts, models and approaches to health communication? 2.1 Theories a. How can theory help plan effective programs. b. Explain individual, interpersonal and community behavior. 2. Fitting theory to field practice a. Social Cognitive Theory(Bandura) b. Communication Theory c. Theory of Planned Behavior d. Theory of Reasoned Action(Fishben & Ajzen) e. Tran-theoretical Model of Behavior Change(Prochaska) f. Diffusion of Innovation Theory(Everett Rogers) g. Health Belief Model(Becker & Rosenstock h. Social Capital Theories i. Rose Hypothesis j. Stages of Change Model 3. Models a. Social Marketing

	b. Community engagement and Participatory Models c. Behavior change communication. 4. Methods of using complementary theories approaches, and methods to address multiple determinants of health at individual, and community level. 5. Push and Pull factors that influence behavior a. Personality Factors b. External/ Environmental Factors. c. Persuasion and media effects.
STRATEGIES FOR EFFECTIVE HEALTH COMMUNICATION AND PROMOTION	1. Steps in Planning, Strategy Development and Implementation a. Needs Assessment b. Audience Assessment c. Identification of desired attitude and behavior change d. Identification of influencers and community leaders e. Building project team Recruitment of team based on skills requirement for execution of the programme f. Defining aims and objectives g. Planning activities - using a log frame h. Developing budget i. Identifying assumptions and risks j. Implementing campaigns and interventions I. Developing concepts, messages, and material II. Pretesting III. Assessing effectiveness and refining (more in M&E section) 2. Mass communication strategies for health promotion a. Public Service Announcements b. Public Communication Campaigns c. Integration of mass media into community-led health promotion strategies d. Advertising e. Entertainment Education & Infotainment f. Technology and Health Communications g. Introduction to web based communication h. One minute messages and role play 3. Risk Communication a. Principles of practice for risk/crisis communications.

	b. Examples from outbreak communication c. Involving stakeholders d. Working with the media e. Developing messages f. Effectively communication to the masses. Targeted and target-free communication approaches. 4. Media advocacy
MONITORING AND EVALUATION	1. Fundamentals of program monitoring and evaluation 2. Developing indicators (Input-process-output-outcome) 3. Means of verification 4. Methods • Surveys • Semi-structures interviews • Focus group discussions
CONTEMPORARY ISSUES IN HEALTH COMMUNICATION	1. Learn about contemporary issues in public health communication with a focus on: a. Millennium Development Goals b. NRHM c. ICDS d. National AIDS Control Programme e. Community-centred Communication and the importance of a paradigm shift in IEC/BCC programmes
URBAN AND RURAL COMMUNICATION	1. Principles of rural communication 2. Examples and practices in rural communication 3. Urban Communication: characteristics of the target group; opportunities and challenges 4. Media Use a. Rationale for use of varied channels b. Types of scheduling c. Mid-level Media i. Process/Requirements to initiate a mid-media campaign ii. Challenges in implementation iii. Examples from India and other countries iv. Group exercise to analyse a given situation, create and showcase appropriate mid-level media d. Use of ICT and E-health platforms i. Rationale and use of ICT platforms ii. Discussion of ongoing efforts iii. Understanding implementation strategies

	iv. Group exercise using case studies from India and other countries
PRINCIPLES OF SOCIAL RESEARCH	STEPS IN RESEARCH **1.** Developing a research question a. Concepts, variables, indicators **2.** Research Design a. Experiments b. Surveys c. Observational d. Documentary **3.** Participatory Needs Assessment a. Common PNA techniques b. Visualization and mapping techniques c. Participatory Action Research **4.** Sampling a. Probability Sampling b. Non-probability Sampling c. Sampling error and non-sampling error **5.** Analyzing Qualitative Data a. Steps in analysis b. Thematic analysis c. Framework analysis d. Grounded theory e. Improving quality of qualitative data f. Reliability g. Generalisability **6.** Tools for communication research: a. Open and close ended questionnaires b. Focus Group Discussion Guidelines c. Interview Schedules
WRITING FOR PUBLIC HEALTH	1. What makes public health message credible a. Information credibility b. Communication channels c. Communicators credibility d. Context e. Language 2. Effective use of data for designing health promotion interventions

FIELD VISITS PRACTICUM & CASE STUDIES	Field visits are organized to give students exposure to communication interventions in various field sites and to innovations such as Arts and Public Health, Information & Communication Technologies (ICTs), mime and puppetry.

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Class Participation	10
Field work assignment	20
Class room assignment	20
Module exam	50

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1. Sullivan, Tara M, Strachan Molly, Timmons Barbara K; Guide to Monitoring and Evaluating Health Information and Products. USAID, November 2007
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2. M
   aking Health Communication Programs Work, U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute
   @http://www.nci.nih.gov/pinkbook
3. Theory at a Glance, A guide for Health Promotion Practice
   @http://www.comminit.com/en/node/180930
4. Guidelines for effective use of data from HIV surveillance systems, UNAIDS/WHO, 2004
   @http://www.who.int/hiv/strategic/surveillance/hivpubsurveillance/en/index.html
5. Johns Hopkins Bloomberg School of Public Health
   @ http://www.jhsph.edu/
6. Boston University School of Public Health
   @ http://sph.bu.edu/
7. London School of Hygiene and Tropical Medicine
   @ http://www.lshtm.ac.uk/
8. TUFTS University
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9. Haider, Muhiuddin (Ed). 2005. Global Public Health Communication: Challenges, Perspectives and Strategies. Jones and Bartlett Publishers
10. Mays, Nicholas and Catherine Pope, Qualitative research in health care: Assessing quality in quantitative research. British Medical Journal, 2000; 320; 50-52.
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12. Measuring Social Capital, Veronica Nyan Jones, World Bank. 2004.

READINGS

1. Detels R, McEwen J, Beaglehole R, Tanaka H eds. Oxford Textbook of Public Health. 4th Ed. Oxford University Publications. 2004.
2. Gupta, Piyush and O.P. Ghai (2007), Textbook of Preventive and Social Medicine, CBS Publishers and Distributors, New Delhi, 2nd edition.
3. Haider, Muhiuddin. Global Public Health Communication, Challenges, Perspectives, and Strategies. Jones and Bartlett Publishers, Inc. 2005
4. Jones, Linda J. (1994), The Social Context of Health and Health Work, Palgrave. (Chapter 1 – Health in a Social Context pp. 1-38)
5. McDowall, Wendy. Bonell, Chris; Davies, Maggie. Health Promotion Practice, Open University Press, 2006
6. Park, K. (2007), 'Concepts of Health and Disease' in Text book of preventive and social medicine, (19th ed.), M/s Banarasidas Bhanot, Jabalpur.
7. Phyllis Tilson Piotrow, D. Lawrence Kincaid, Jose G. Rimon, Ward Rinehart. Health Communication. Praeger.
8. Somesh Kumar and Robert Chambers. (2002). Methods for Community Participation: A Complete Guide for Practitioners. Practical action
9. Hornik Robert C, Public Health Communication: Evidence for Behavior Change, Lawrence Erlbaum Associates , 2002
10. Lawrence Wallack, Media Advocacy and Public Health, Power for Prevention, SAGE.
11. The Hidden Epidemic: Confronting Sexually Transmitted Diseases, Institute of Medicine, 1997

Biostatistics

Course Overview

The course provides students a foundation on basic statistical techniques that are important for analyzing and interpreting data arising from epidemiology, environmental health, biomedical and other public health-related research. This course will emphasize on data handling techniques and choosing appropriate statistical methods for a given scenario. Knowledge of these techniques would not only help the researcher to perform simple statistical analyses independently but also helps to have a meaningful communication with a statistician and comprehend scientific literature better. To master the conceptual material and apply the techniques covered in the course, practical sessions on real data will be conducted after each topic. The course will emphasize on learning the statistical concepts by conducting statistical analyses on the computer.

Learning Objectives

Upon completion of this course, participants will be able to:

1. Interpret and prepare graphical and numerical summaries of data.
2. Understand basic statistical and probability concepts.
3. Understand the basics of statistical inference with respect to estimation and hypothesis testing.
4. Be able to determine appropriate statistical methods to use and implement them in simple analyses involving inferences for the population mean and proportion from one sample, from two samples, and simple linear regression models.
5. Determine appropriate use of data and statistical methods.
6. Understand different types of sampling techniques and be able to calculate the sample size for prevalence studies.
7. Be able to use computer software to conduct simple statistical analyses.
8. Present both oral and written reports of the methods and results.

Content areas

1) Introduction to Biostatistics
    a) Uses of Biostatistics in Epidemiology & Public Health
    b) Types of data
2) Rates, Ratios and Proportions
    a) Definitions and contrasting features
3) Presentation of Data: Tabular and Graphical
    a) Tabular display methods
    b) Bar Chart
    c) Pie chart
    d) Histograms
    e) Frequency Polygon
    f) Scatter plot
    g) Stem-and-leaf plots
4) Measures of Central Tendency
    a) Mean, Median, Mode and Quantiles
    b) Choice of measure
5) Measures of Dispersion
    a) Range
    b) Inter-quartile range
    c) Standard deviation
    d) Variance
    e) Standard Error
6) Measures of Shape
    a) Skewness and Kurtosis
7) Concepts of Probability
    a) Definition of Probability
    b) Various rules of Probability
    c) Independent and Conditional Probabilities
8) Probability Distributions
    a) Normal distribution
    b) Binomial
    c) Poisson
9) Statistical Inference

a) Confidence Interval
b) p-value
c) Type I and Type II Errors
d) Power of Test
e) Hypothesis testing and its various steps

10) Tests for Comparison of Means and Proportions
a) t – Test
b) z – Test
c) Chi – Square Test
d) Analysis of Variance

11) Intro to Non parametric tests
a) Mann-Whitney U test
b) Wilcoxson signed rank test
c) Kruskal Wallis tests

12) Correlation
a) Pearson's coefficient
b) Spearman's coefficient

13) Sampling techniques and sample size calculation
a) Probability and non probability sampling techniques
b) Sample size calculation

14) Concepts of Regression analysis
a) Simple Linear Regression
b) Multiple Linear Regression
c) Logistic Regression

Lecture No.	Lecture Topics	Activity
1-2	Introduction to Biostatistics Types of variables and data Data entry into excel	Class Lecture Lab: Introduction to excel
3	Overview of Rates, Ratios and Proportions	Class Lecture Assignments
4	Presentation of Data Tabular and Graphical Presentation techniques	Class Lecture Excel lab: Construction of graphs
5	Introduction to Epi-info software	Lab session

6-7	Measures of Central Tendency, Measures of dispersion and Measures of shape Factors influencing choice of measure	Class Lecture Lab Session: Presentation of data and Various measures
8-10	Basics of Probability and Probability Distributions – Normal, Binomial and Poisson Distributions	Class Lecture Practice exercises
11-13	Confidence Interval p-value Type I and Type II Errors Power of Test Hypothesis testing and its various steps	Class Lecture Practice Session: Hypothesis testing
14-17	Test for Comparison of Means and Proportions Parametric tests: t – Test, z – Test, Chi – Square Test, Analysis of Variance Non-parametric tests: Mann-Whitney U test, Wilcoxon signed rank test, Kruskal Wallis test,	Class Lecture Lab session: Test of Comparison
18	Correlation: Scatter plots, Pearson's correlation coefficient, spearman's correlation coefficient	Class Lecture Lab session: Correlation
19-20	Sampling techniques and sample size calculation	Class Lecture Lab session: Sample size calculation
21	Concepts of regression: Simple and multiple regression, logistic regression	Class Lecture Lab session: Regression

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Assignments	40
Group Presentations	10
Module exam	50

Key readings

1. Kirkwood BR (2003). Essentials of Medical Statistics. Blackwell Scientific Publications, Oxford
2. Leslie E. Daly, Geoffrey J. Bourke. (2000). Interpretation and Uses of Medical Statistics. Blackwell Publishers
3. Gerstman, B. Bert (2009). Basic Biostatistics: Statistics for Public Health Practice. Jones and Bartlett.
4. Indrayan, A (2). Medical Biostatistics. Taylor and Francis group.
5. James F. Jekel, David L. Katz, Joann G. Elmore, and Dorothea Wild. (2007). Epidemiology, Biostatistics and Preventive Medicine. Saunders.
6. Douglas G. Altman. Practical Statistics for Medical Research (2006). Chapman & Hall/CRC

Operations Research and Research Methods

Course overview

This module introduces PGDHM students to types of researches, Operations Research also called Implementation Research or Action Research or Health Systems Research and basic research methods. Operations research is concerned with improving the health of people and communities, by enhancing the efficiency and effectiveness of the health system as an integral part of the overall process of socio-economic development, with full involvement of all partners.

The module equips the health managers with the necessary skills to understand the health problem scenario and devise appropriately focused strategies. This module also gives students a holistic overview of conducting a research study and brings together concepts and methods of research taught in courses like epidemiology, biostatistics, and social and behavioral sciences. The course combines lectures with practical work done by groups of 4-5 students. Each group will undertake a small, in-class research study on a given research topic. For this topic, they will do a brief literature review, and formulate research questions and objectives. They will also design quantitative and qualitative tools required for their research study.

This module will also involve a one-week intensive training on research methods towards the end of class-room teaching of the PGDPHM course and before the commencement of the project work to enable students practice the research skills which they will use in their project work.

Further, the course limits itself to an overview of various research methods and therefore students keen on pursing advanced research techniques would need to supplement their knowledge with advanced courses on the topic.

Learning Objectives

At the end of the course participants will be able to

1. Develop improved understanding of the types of research and operations research and their application.

2. Perform a situation analysis of a local scenario in the health system and create a problem diagram in health systems.
   a) Identify, state and justify a research problem, formulate aims, objectives and hypotheses, and choose an appropriate study design
   b) Differentiate between quantitative and qualitative methods
   c) Design quantitative tools, understand the process of administering these and managing collected data.
   d) Understand basic quantitative analysis of data.
   e) Design qualitative tools, administer these using different techniques and manage collected data.
   f) Describe basic principles of and approaches to qualitative data analysis
3. Select appropriate strategy for improving the health system problem identified.

Course Content

1. Introduction to types of researches, categories of OR, application of OR
2. Introduction to study designs and research methods
3. Formulating the Problem Statement with justification and writing aims and objectives
4. Systematic review of literature
5. Sample Size Calculation
6. Study Design
7. Qualitative Research Methods
   i) Focus Group Discussion
   ii) In depth interviewing
8. Analysis of Qualitative Data
9. Writing up research findings
10. Selection of appropriate strategy for improving health system problem identified

Resource Persons

Anjali Singh (Module Lead), Sunil George, Dr. Sutapa Neogi, Dr. Niveditha D, Dr Aruna Bhattacharya.

Grading Scheme

ACTIVITIES	PERCENTAGES
Class	10%

ACTIVITIES	PERCENTAGES
Participation	
Group Project (including class assignments)	20%
Final protocol submission	70%

A written study protocol (including instruments of data collection) on topic allotted to be submitted by each group.

Course Resources:

1. Judith Greene and John Browne, Principles of Social Research, Open University Press (01280 823388), 2005.

1. Cooper, D.R. and Schindler, P.S. (2001): 'Business Research Methods', 7th Edition, McGraw Hill.
2. Fink, A. (2004): 'Evaluation Fundamentals Insights into the Outcomes, Effectiveness, and Quality of Health Programs', Sage Publications.
2. Yin, R. (2003): 'Case Study Research: Design and Methods', 3rd edition, Sage Publications.

Free online text books

3. Varkevisser CM, Pathmanathan I, Brownlee A. Designing and Conducting Health Systems Research Projects. Volume 1, Proposal Development and Fieldwork. Ottawa: IDRC, 2003.
4. Varkevisser CM, Pathmanathan I, Brownlee A. Designing and Conducting Health Systems Research Projects. Volume 2, Data Analyses and Report Writing. Ottawa: IDRC, 2003
5. Qualitative Research Methods: A Data Collector's Field Guide, Family Health International. 2005.
6. Pamela M. Hudelson, Qualitative Research for Health Programmes, division of mental health, WHO, Geneva, 1994.

Optional Readings

7. Ritchie, J. and Lewis, J. (eds) Qualitative Research Practice: A Guide for Social Science Students and Researchers. Sage Publications: London. 2003

8. Judith Greene and Nicki Thorogood, Qualitative Methods for Health Research, London: Sage Publications, 2004.

9. Anita Hardon et al. Applied Health Research-Manual: Anthropology of Health and Health Care Amsterdam: Het Spinhuis, 2005

10. Creswell, John W. Research design: qualitative, quantitative, and mixed methods approaches (2nd ed.). Thousand Oaks, CA: Sage. 2003.

11. C.R. Kothari, Research methodology; Methods and techniques, New Delhi, Wiley Eastern, 1990.

12. Earl R. Babbie, Survey research methods, Wadsworth Publishing; 2 edition, 1990.

13. Jaber F. Holstein and James A. Gubrium, Handbook of Interview research- content and method, Thousand Oaks, CA: Sage,2001.

14. Miles MB and Huberman AM, Qualitative Data Analysis: An Expanded Sourcebook, second edition, Thousand Oaks, CA : Sage Publications, 1994

15. Morgan D.L. Focus groups as qualitative research. 2nd edition, London: Sage. 1997.

16. Patten, Mildred L. Questionnaire Research: A Practical Guide. Los Angeles: Pyrczak Publishing, 2001.

17. Robert Chambers and Somesh Kumar, Methods for Community Participation: A Complete Guide for Practitioners, ITDG Publishing, 2003.

18. William R. Shadish, Thomas D. Cook, Donald T. Campbell, Experimental and Quasi-experimental Designs for Generalised Causal Inference, Houghton Mifflin, Boston, MA, 2002.

19. Yin RK, Case Study Research, Design and Methods, 2nd ed, Newbury Park, Sage Publications, 1994

Environmental and Occupational Health

Course overview

The overall aim of the course is to provide the students with a scientific understanding of the concepts related to environment and occupational health; possible approaches to assess, communicate and control major environmental and occupational hazards; and debate on current policies on environmental and occupational health. This course will be interactive with field visits, lab sessions and case study discussions. Local level examples will be used but comparisons will be made to the global level.

Learning Objectives

Upon completion of this course, participants will be able to:

1. Understand basic concepts in environmental health and gain sensitivity to the environmental health burden
2. Explain different sources, routes and health outcome associated with chemical, physical, biological agents in the environment and occupational settings
3. Discuss the methods/tools for exposure assessment and to analyze health impacts of environmental exposures
4. Identify occupational hazards and define the steps in the risk-assessment and risk-management processes
5. Critically look at key environmental health problems in a public health context
6. Debate on the current legislation, policies and regulation regarding environmental and occupational health issues and its implementation to improve public health.

Content areas

1) Environmental health burden and certain concepts
   a) Historical background into environmental and occupational health
   b) Basic principles/ terminologies
   c) Core areas in environmental health

2) Environmental pollution and its impact
    a) Magnitude of the problem
    b) Sources of pollution
    c) Measuring exposure and outcome
    d) Risk assessment; quantitative and qualitative

    Concerning:

        i) Air
        ii) Water
        iii) Noise pollution
3) Water supply and sanitation
    a) Safe water and sanitation in relation to MDGs
    b) Solid waste disposal systems
    c) Liquid waste disposal systems
    d) Problems in developing countries and the health impact
    e) Strategies for ensuring environmental sanitation in slums and rural areas
4) Biomedical waste
    a) Categories of waste
    b) Disposal mechanisms
5) Environmental legislations in India
6) Estimating dose and exposure in environmental health
    a) Terminologies in relation to dosage and exposure
    b) Dose response models
    c) Choice of appropriate measure of exposure
7) Estimating outcomes in environmental exposures
    a) Susceptibility and toxicology of measures
    b) Sources of data for outcome ascertainment
    c) Hierarchy of exposure measurement
    d) Risk characterization and modeling
8) Occupational health burden of diseases
9) Occupational hazards
10) Occupational health legislations and services in India
11) Ergonomics

Lecture No.	Lecture Topics	Activities
1	Environmental health burden in India and certain concepts	Lecture & Video show
2 – 3	Environmental Pollution Air, noise and Water pollution	Lecture
4-5	Solid waste and Biomedical waste management	Lecture & Field Work
6	Women, work and agriculture	Lecture & Group discussion
7	Environmental legislations in India	Lecture

12) Identifying hazards and risks at the workplace

13) Prevention of occupational diseases at the workplace

8-9	Estimating dose and exposure in environmental health (environmental monitoring)	Lecture
10	Contemporary Issues in Environmental health	Seminar(students)
11	Introduction to occupational health	Lecture
12	Burden of major Occupational diseases	Lecture
13	Occupational health legislations and services in India	Lecture
14	Prevention of occupational diseases at the workplace; worksite health promotion	Lecture
15-16	Workplace hazards	Field visit
17	Ergonomics	Lecture

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	10%
Group Assignment	25%
Field visit & presentation	15%
Module exam	50%

Course Resources: Reading materials, required textbooks

Essential Readings:

1) Dade W Moeller. Environmental health. Harvard University Press, 2004
2) Roger Detels, James McEven et al. Oxford textbook of public health, 14 edition, 2004.
3) Maxcy- Rosenau-Last. Public health and preventive medicine, 15 edition, 2007.
4) Park K. Park's Text book of Preventive and Social Medicine. Banarsi Das Bhanot and Sons Publishers, Jabalpur, 19th Ed, 2007:500-5
5) William N Rom (Ed), Steven Markowitz (Ed). Environmental and occupational Medicine, 4th edition, 2006.
6) Peter J Baxter, Peter H Adams, Tar-Ching Aw (ed). Hunter's Diseases of Occupations. Published by A Hodder Arnold Publication, 2002.

7) Exposure Assessment in Occupational and Environmental Epidemiology, edited by Mark J. Nieuwenhuijsen, Oxford University Press, 2003
8) Paustenbach, DJ, 2002. Human and ecological risk assessment. Theory and practice. Wiley Interscience, New York.1556 pp.
9) Mark G. Robson, William A. Toscano. Risk assessment for Environmental Health. John Wiley, 2007.

VII. Additional Readings / Recommended Readings

1) ILO Encyclopedia
2) Yassi A., Kjellstrom T., de Kok T., Guidotti T L.(2001).Basic environmental health. New York: Oxford University Press.
3) Philp R B (1995).Environmental hazards and human health. Boca Raton: Lewis Publishers.
4) Blumenthal D S, Ruttenber A J (1995). Introduction to environmental health. Second edition. New York: Springer
5) Moeller D W (1997). Environmental health (Revised ed). Cambridge: Harvard University Press
6) Nadakavukaren A. (2000). Our Global environment: A health perspective (5th edition).Prospect Heights: Waveland Press, Inc.
7) Central Industrial Hygiene Association, India. Indian journal of occupational hygiene and safety (quarterly publication)
8) WHO (1972). Health hazards of the human environment, WHO, Geneva
9) Govt of India, ICMR (1975). Manual of standards for Drinking water. ICMR Report No.44, 1975.
10) WHO (1971). International standards for Drinking water, Geneva
11) Bopardikar M V (1967). Environmental Health, 9, 349.

Communicable Diseases

Course overview

The history of medicine has been shaped by man's desire to conquer infectious disease. Over the course of the past 100 years, the advances made by the science and technology have further fuelled this desire. The modern increase in life expectancy has a significant contribution of mankind's control over infectious disease. The course highlights and covers the major infectious diseases that affect people over the globe with a special reference to India and other developing countries. It also seeks to discuss the strategies employed for the control of these diseases and the success thereof. Newly emerging

infectious diseases like SARS and viral hemorrhagic fevers have also been included for discussion and review.

Learning objectives

At the end of the module, the student will be able to:

1. Recognize the burden of CDs affecting the population
2. Examine factors contributing to the persistence of infectious diseases
3. Understand reasons for emergence and re-emergence of infectious diseases
4. Analyze the transmission dynamics of diseases and design appropriate control measures at his level of functioning

Content areas

1) Introduction to CDs
   a) Classification
   b) Burden of disease
   c) Trends in CDs; global and regional
2) Basic terminologies in CDs
   a) Agent, host, vector, vehicle, environment
   b) Bacteria, viruses, parasites
   c) Incubation period, latent period, induction period
   d) Eradication, elimination, control
3) Agent factors in CD transmission
   a) Infectiousness, transmissibility, communicability, reservoir
4) Host factors in CDs
   a) Susceptibility, resistance, immunity
5) Environmental factors in CDs
   a) Conducive environment, breeding grounds
   b) Climate change and relationship with infectious diseases
6) Emerging and re-emerging diseases
7) Drug resistance in CDs
   a) Biological reasons for emergence of resistance
   b) Impact on national programs
   c) Economic burden of drug resistance

d) Globalization and spread of infectious diseases

e) Impact and challenges

8) Control strategies

a) Levels of prevention and modes of intervention

b) Source reduction

c) Vaccination

d) Integrated vector control

e) Diagnosis and treatment

9) International instruments

a) International disease surveillance

b) GOARN

10) Research in CDs

a) Bottlenecks

b) Best practices in disease control

c) Newer vaccines

11. Epidemiology & control Communicable Diseases with special reference to Patterns of transmission, risk factors, prevention and intervention of

d) HIV/AIDS

e) Leprosy

f) Vector Born Diseases (Malaria, Filaria, Plague , Yellow fever Dengue, Chikungunya, Kala-Azar, Japanese Encephalitis , KFD)

g) Epidemiology and control of communicable vaccine preventable disease: Tuberculosis, Diphtheria, Whooping Cough, Measles, Tetanus, Polio

h) Hepatitis, Encephalitis

Lecture No.	Lecture Topics	Activity
1-2	Introduction to CDs Classification Burden of disease and trends	Lectures Participants assignments Seminars
3 – 6	Basic terminologies in CDs Epidemiological triad Eradication, elimination and control strategies	Lectures Participants assignments Seminars
7-8	Agent factors in CD transmission	Lectures Group discussion
9	Host factors in CDs	Lectures
10	Environmental factors in CDs	Lecture Article review

11-12	Emerging and re-emerging diseases	Panel discussion Seminars
13-14	Drug resistance in CDs Globalization and spread of infectious diseases	Seminars Journal Club Article reading
15-16	Control strategies Levels of prevention and modes of intervention Source reduction Vaccination Integrated vector control Diagnosis and treatment	Lectures Participants assignments Seminars Group discussion
17-18	International instruments International disease surveillance GOARN	Article reading Group discussion Journal Club
19-20	Research in CDs Bottlenecks Best practices in disease control Newer vaccines and role of GAVI	Article reading Group discussion Journal Club
21-30	Disease specific Communicable disease epidemiology TB HIV Malaria Hepatities Water Born communicable diseases Vaccine preventable diseases	Participants assignments Seminars Group discussion

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Class Participation	15
Group Assignment	10
Group Presentation	15
Viva Voce	10
Module exam	50

Course resources

Key readings

1. David L. Heymann.(2004). Control Of Communicable Diseases Manual (Control of Communicable Diseases Manual). American Public Health Association.
2. Lenore S. Clesceri, Arnold E. Greenberg, Andrew D. Eaton, Mary Ann H. Franson.(1999). Standard Methods for the Examination of Water and Wastewater (Hardcover). American Water Works Association
3. Nelson and Masters (2006). Infectious disease epidemiology: Theory and Practice. Jones and Bartlett Publishers.
4. Dean T. Jamison, Joel G. Breman, Anthony R. Measham, and George Alleyne (2006). Disease Control Priorities in Developing Countries. World Bank.

Public Health Nutrition

Course Description

Public Health Nutrition is the promotion of good health through nutrition and physical activity, and the prevention of related illness in the population.

This diploma which expands on the subject of nutrition and health, will give a competitive edge for people wanting to work in the field of Nutrition. It covers essential elements of different areas of nutrition, the human body and health, as well as research skills. The mix of skills learnt in this course would be valuable for persons working in a range of industries including food processing, provision, service, research, consultants, etc. This is however not intended to be a qualification to train someone as a medical or hospital nutritionist. It may be a stepping stone toward such a career; but nutrition experts who work in the sensitive area of treating serious nutritional disorders will normally require further specialized study.

Course overview

This course includes consideration of contemporary public health nutrition issues and integrates analysis of these issues with practical problem resolution at a population level using a socio-ecological approach. It includes the analysis of, development and application of the educational, organisational, legislative and environmental change strategies used to improve the nutrition-related health of communities. This course has a particular focus on the application of public health intervention management processes to address priority public health nutrition issues and population groups. It covers the practice framework for problem and determinant analysis, capacity building, intervention planning, strategy implementation and evaluation relevant to diet-related disease prevention and health promotion.

This course includes nutritional assessment skills development, consideration of food and nutrition monitoring and surveillance, health economics, food law, food security and systems analysis and development that support improved population health and well-being.

Learning objectives

After completing the course students will be able to:

1. Identify the essential food groups and micronutrients and their physiological role in the body
2. Describe the influence of diet on nutritional status and thus on the health of populations including populations with special needs
3. Identify and utilize sources of information on the nutritional status of Indian population
4. Describe the epidemiologic and basic science research on which current nutrition recommendations are based
5. Describe current public health nutrition practice contexts, priorities, strategies and initiatives at a national and international level
6. Identify public health nutrition problems as a prelude to program planning, design and intervention prioritization.

Course content

Lecture No	Lecture Topic	Activity/assignment
1 (1 hour)	Introduction to principles of public health nutrition:	Readings
2-4 (3 hours)	Nutritional epidemiology: Research Methods Principles and concepts	Lectures
5-6 (2 hours)	Population nutrition: Food security, hunger and undernutrition: Nutrition transition and over nutrition	Lectures Case studies Assignment: review of on community nutrition problem of interest within a specific geographical region
7-9 (3 hours)	Principles of Physical Activity Assessment of Nutrition and Physical Activity Anthropometry Biomarkers	Lecture , instrument demo and group activities
10-11 (2 hours)	Methods of Nutritional Assessment (Field) Surveillance and monitoring	Lecture and Readings; group activities.
12-15 (8 hours)	Health and Nutrition promotion: Nutrition Policy and Program Planning Community nutrition Nutrition education and Promotion Nutritional services and programs in the community	Lecture and readings Visit to NFI Assignment: creating nutrition education materials.
15 (3 hours)	Food safety: Principles and prevention.	Lecture Case study discussion
Total: 22 hours		

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	10
Assignments	20
Group Projects	20
Module exam	50

Course resources: (Reading materials, textbooks)

1. Nutritional Epidemiology by Walter Willett, second edition, published by Oxford University Press US
2. Principles of Nutritional Assessment by Gibson R. Oxford University Press.

Additional Readings / Recommended Readings:

1. Shils ME, Shike M, Ross AC, Caballero B, Cousins RJ. Modern Nutrition in Health and Disease, 10th edition. Philadelphia: Lippincott Willliams & Wilkins, 2005.
2. K.S. Jacob. Public health in India and the developing world: beyond medicine and primary healthcare. J Epidemiol Community Health.2007; 61: 562-563.

Non-Communicable Diseases

Course overview

Non-communicable diseases threaten to kill more people than all infectious diseases put together. India faces a double burden of disease both infectious and non-infectious or non-communicable. The risk factor approach forms the basis of prevention of non-communicable diseases. This module sensitizes them to the various approaches to prevention of non-communicable diseases, evidence based strategies and approaches and the multi-disciplinary and multi-sectoral nature. National programs of relevance are alluded to.

Learning objectives

1. Recognize the burden of NCDs affecting the population
2. Determinants of NCDs
3. Understand the approaches to tackle this problem
4. Understand the power of prevention in non-communicable diseases
5. Tobacco
6. Role of policy, in NCD prevention
7. Policy formulation, advocacy and implementation.
8. Site –specific approaches to prevention of NCDs
9. Role of urban design and multi-sectoral approaches in non-communicable diseases
10. Advocacy – polices for prevention of NCDs
11. Exposure to STEPS

Content areas

1) Introduction to NCDs
2) Basic concepts :
   a) Risk factor approaches
   b) Multi-factorial causation
   c) Iceberg phenomenon
   d) Approaches to prevention

3) WHO STEPS approach
4) Policy- formulation of policies- advocacy and implementation
5) Globalization, migration and NCDs
6) Site specific approaches to prevention of NCDs

Course grading scheme
Internal Evaluation : Class participation, groups work and group presentations

Course resources

Key readings

1. Dean T. Jamison, Joel G. Breman, Anthony R. Measham, and George Alleyne (2006). Disease Control Priorities in Developing Countries. World Bank.
2. Reddy, Srinath (2004), "Cardiovascular Disease in Non-Western Countries" in New England Journal of Medicine, 350 (24), pp. 2438-24
3. WHO. 1996. The global burden of disease. WHO. Geneva. Switzerland
4. The world health report 2001 – Mental health: new understanding, new hope. Geneva, World Health Organization, 2001.
5. Ezzati M, Vander Hoorn S, Lawes CM, Leach R, James WP, Lopez AD et al. Rethinking the "diseases of affl uence" paradigm: global patterns of nutritional risks in relation to economic development. PLoS Medicine, 2005, 2(5):e133.
6. Reddy KS, Shah B, Varghese C, Ramadoss A. Responding to the threat of chronic diseases in India. The Lancet 2005;366(3498):1744-9.
7. Reddy KS. Cardiovascular diseases in the developing countries: dimensions, determinants, dynamics and directions for public health action. Public Health Nutr 2002 Feb;5(1A):231-7.
8. WHO India, Home page. http://www .whoindia org/EN/Index htm (accessed on 11th feb 2008) 2008 January 29
9. Goenka S, Prabhakaran D, Ajay VS, Reddy KS. Preventing cardiovascular disease in India - translating evidence to action. Current Science 2009;97(3):367-77.
10. Goenka S, Ajay V, Jeemon P, Prabhakaran D, Varghese C, Reddy KS. Powering India's Growth. IC-Health, Center for Chronic Disease Control, World Health Organisation-Country Office, Public Health Foundation of India; 2007.
11. Goenka S, Niveditha D, Khurana S, Snehi U, Jeemon P, Lyngdoh T, et al. Recommended National Plan of Action for Implementation of WHO's Global Strategy on Diet, Physical Activity and Health. Reddy KS, editor. 2005. Initiative for Cardiovascular Health Research in the Developing countries, WHO Country Office, Ministry of Health and Family Welfare, Govt of India, Dept of Cardiology, All India Institute of Medical Sciences, http://www.whoindia.org/EN/Section20/Section385_1097.htm. Ref Type: Serial (Book,Monograph)

12. Reddy KS, Arora M. Ban on tobacco use in films and television represents sound public health policy. Natl Med J India 2005 May;18(3):115-8.
13. Reddy KS, Naik N, Prabhakaran D. Hypertension in the developing world: a consequence of progress. Curr Cardiol Rep 2006 Nov;8(6):399-404.
14. Prabhakaran D, Jeemon P, Goenka S, Lakshmy R, Thankappan KR, Ahmed F, et al. Impact of a worksite intervention program on cardiovascular risk factors: a demonstration project in an Indian industrial population. J Am Coll Cardiol 2009 May 5;53(18):1718-28.

1.

Essentials of Health Economics

Course overview

Health economics is rapidly gaining importance as an integrated stream of public health policy and planning. However, the field of health economics is relatively new in India as, till recently, there were very limited avenues of teaching and training of health economics. However, with recognition of health as an important socio-economic determinant of development, there is a need for specialized orientation training of health economics so that its awareness and competence can be developed among various stakeholders at different levels. The module on "fundamentals of health economics" aimed at imparting orientation of application of economic principles in health policy and planning of healthcare programmes.

Learning objectives

The objective of this training course is to enhance the competence of non-economist participants in the area of health economics. Specifically, it aims to

1. Describe health in the context of the overall development and its linkages with other sectors of an economy
2. Describe the basic concepts and approaches of health economics
3. Identify and facilitate the areas of applicability, relevance and significance of economics in health sector
4. **Describe fundamentals of costing and economic evaluations**

Course content

Lecture No	Lecture Topics	Activities
1	Introduction to the course	Lecture
2	Introduction to Economy, health, and Human Development	Lecture
3	Health and Development	Lecture
4	Linkages between health and other economic sectors	Lecture
5	Health-income, health-development nexus	Lecture

6	Health and income: case studies of macro indicators	Video show
7	Key concepts in economics : Health and healthcare market	Lecture
8	Key concepts in economics : Supply-Demand model	Lecture
9	Key concepts in economics : Supply-Demand model	Lecture
10	Key concepts in economics : Externalities and public goods	Lecture
11	Key concepts in economics : Externalities and public goods	Lecture
12	Economics of health problems : Case study I	Seminar
13	Economics of health problems : Case study II	Seminar
14	Key concepts in health economics : demand and production function of health	Lecture
15	Key concepts in health economics : Uncertainty and asymmetry of information	Lecture
16	Key concepts in health economics : Agency relationship	Lecture
17	Importance and role of government intervention in health care market	Lecture
18	Economics of health problems : Case study III	Seminar
19	Economics of health problems : Case study IV	Seminar
20	Cost and cost analysis	Lecture
21	Cost and cost analysis	Lecture
22	Fundamental of economic costing	Lecture
23	Cost analysis: case study	Seminar
24	National Health Accounts	Lecture
25	Basics of economic evaluation	Lecture
26	Measurement of outcome	Lecture
27	Types of economic evaluation	Lecture
28	Economic evaluation	Lecture
29	Economic evaluation : case study	Seminar
30	Recap and summary	Discussion

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	15
Article review	15
Group Projects	20
Module exam	50

Course resources: (Reading materials, required textbooks)

1. Better Health Systems for India's Poor: Findings, Analysis, and Options. By David H. Peters, Published by World Bank Publications, 2002, ISBN 0821350293, 9780821350294

2. Economics for Health Sector Analysis: Concepts and Cases By: A. Mead Over, Economic Development Institute (Washington, D.C.) Published by World Bank Publications, 1991 ISBN 0821313355, 9780821313350

3. Arrow, Kenneth J. (1963). "Uncertainty and the Welfare Economics of Medical Care". American Economic Review 53 (5): 941–73.

4. Drummond M and Mooney G. "Essentials of health economics" British Medical Journal (Clinical research ed.), 1982

5. Mills A, Gilson L. "Health economics for developing countries: A survival kit." HEFP working paper 01/88, LSHTM, 1988 (http://www.hefp.lshtm.ac.uk/publications/downloads/working_papers/01_88.pdf)

6. Mahal A, Rao B. HIV/AIDS epidemic in India: An economic perspective. Indian. Journal of Medical Research. 2005;121:582-600

7. A Primer of Health Systems Economics. By: V Raman Kutty. Published by: Allied Publishers Ltd 1999 ISBN 81-7023-864-1

Additional Readings / Recommended Readings:

1. Macroeconomics and Health: Investing in health for economic development, Report on the Commision on Macroeconomics and Health (2001), World Health Organization, http://whqlibdoc.who.int/publications/2001/924154550X.pdf.

2. Chisholm D, Evans D (2007). Economic evaluation in health: saving money or improving care? Journal of Medical Economics, 10: 325-337

3. Global Public Goods for Health Health economic and public health perspectives, Richard Smith, Robert Beaglehole, David Woodward, Nick Drager (oxford university press)

4. Investing in Health, Published by World Bank, 1993, ISBN 0195208897, 9780195208894

5. Health, Poverty, and Development in India, By Monica Das Gupta, Lincoln C. Chen, T. N. Krishnan, Published by Oxford University Press, 1996, ISBN 019563621X, 9780195636215

6. Guide to Producing National Health Accounts: With Special Applications for Low-income and Middle-income Countries, By World Bank, World Health Organization, United States Agency for International Development, Published by World Health Organization, 2003, ISBN 9241546077, 9789241546072

7. Methods for the Economic Evaluation of Health Care Programmes (Third Edition). By: Michael F. Drummond, Mark J. Sculpher, George W. Torrance, Bernie J. O'Brien, and Greg L. Stoddart. ISBN:0-19-852945-7 Publisher: Oxford University Press

8. Health Economics. Charles E. Phelps 3rd Edition. Published: July 5, 2002. Dimensions: 688 Pages, 6.72 x 9.36 x 1.22 in. Published By: Pearson Education. ISBN:032106898X

9. Economic Analysis of Health Sector Projects -A Review of Issues Methods, and Approaches By: R. Adhikari, P. Gertler and A. Lagman. Asian Development Bank. March 1999

Health Financing and Insurance

Course overview

The health financing is an emerging theme under public health management. Ever increasing health care costs continues to be one of the important causes for indebtedness among the poor and middle-income groups. With opening up of the insurance sector, Health insurance sector has been expanding wider horizons, including many experiences of partnerships to promote greater coverage. The module on "Health financing and insurance" is aimed at orienting the participants to the theories of health financing, various existing methods of health financing, the evolution of health insurance, and to the existing health insurance options and its stakeholders.

Learning objectives

The objective of this training course is to enhance the competence of non-economist participants in the area of health financing. Specifically, it aims to

1. Describe different payment mechanisms;
2. Study in detail the different forms of health care financing as these apply within the constraints of different economies and health care systems
3. Provide detailed account of three major forms of health insurance in India i.e. Social Health Insurance, Voluntary Health Insurance, and Community Health Insurance, and
4. Discuss different roles of governments in health care financing.

Course content

Lecture No	Lecture Topics	Activities*
1	Introduction to the course	Lecture
2	Introduction to Health expenditure and health financing	Lecture
3	Introduction to health spending : Global and Indian scenario	Lecture
4	Health expenditure analysis: case study	Lecture

5	Methods of health financing	Lecture
6	Theory of health insurance	Lecture
7	Issues: Welfare improvement, Risk selection/cream skimming, Moral hazard	Lecture
8	Types of health insurance	Lecture
9	Social health insurance	Lecture
10	Voluntary health insurance	Lecture
11	Third party administrators	Lecture
12	Community health insurance	Lecture
13	Government insurance schemes	Lecture
14	Voluntary Health insurance ; Stakeholder Analysis	Role-play – Panel discussion
15	Summary –recap	Group discussion

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	15
Article review	15
Panel discussion	20
Module exam	50

Course resources: (Reading materials, required textbooks)

1. Better Health Systems for India's Poor: Findings, Analysis, and Options. By David H. Peters, Published by World Bank Publications, 2002, ISBN 0821350293, 9780821350294
2. Economics for Health Sector Analysis: Concepts and Cases By: A. Mead Over, Economic Development Institute (Washington, D.C.) Published by World Bank Publications, 1991 ISBN 0821313355, 9780821313350

3. Arrow, Kenneth J. (1963). "Uncertainty and the Welfare Economics of Medical Care". American Economic Review 53 (5): 941–73.
4. Drummond M and Mooney G. "Essentials of health economics" British Medical Journal (Clinical research ed.), 1982
5. Mills A, Gilson L. "Health economics for developing countries: A survival kit." HEFP working paper 01/88, LSHTM, 1988 (http://www.hefp.lshtm.ac.uk/publications/downloads/working_papers/01_88.pdf)
6. Mahal A, Rao B. HIV/AIDS epidemic in India: An economic perspective. Indian. Journal of Medical Research. 2005;121:582-600
7. A Primer of Health Systems Economics. By: V Raman Kutty. Published by: Allied Publishers Ltd 1999 ISBN 81-7023-864-1

Additional Readings / Recommended Readings:

1. Macroeconomics and Health: Investing in health for economic development, Report on the Commision on Macroeconomics and Health (2001), World Health Organization, http://whqlibdoc.who.int/publications/2001/924154550X.pdf.
2. Chisholm D, Evans D (2007). Economic evaluation in health: saving money or improving care? Journal of Medical Economics, 10: 325-337
3. Global Public Goods for Health Health economic and public health perspectives, Richard Smith, Robert Beaglehole, David Woodward, Nick Drager (oxford university press)
4. Investing in Health, Published by World Bank, 1993, ISBN 0195208897, 9780195208894
5. Health, Poverty, and Development in India, By Monica Das Gupta, Lincoln C. Chen, T. N. Krishnan, Published by Oxford University Press, 1996, ISBN 019563621X, 9780195636215
6. Guide to Producing National Health Accounts: With Special Applications for Low-income and Middle-income Countries, By World Bank, World Health Organization, United States Agency for International Development, Published by World Health Organization, 2003, ISBN 9241546077, 9789241546072
7. Methods for the Economic Evaluation of Health Care Programmes (Third Edition). By: Michael F. Drummond, Mark J. Sculpher, George W. Torrance, Bernie J. O'Brien, and Greg L. Stoddart. ISBN: 0-19-852945-7 Publisher: Oxford University Press
8. Health Economics. Charles E. Phelps 3rd Edition. Published: July 5, 2002. Dimensions: 688 Pages, 6.72 x 9.36 x 1.22 in. Published By: Pearson Education. ISBN:032106898X
9. Economic Analysis of Health Sector Projects -A Review of Issues Methods, and Approaches By: R. Adhikari, P. Gertler and A. Lagman. Asian Development Bank. March 1999

Disease Surveillance

Course overview

Surveillance is the foundation of modern public health. Today it covers communicable as well as non-communicable diseases. Disease surveillance techniques and methods are applied beyond the confines of actual disease to include surveillance of personal and environmental risk factors. Participants of public health must be well acquainted with the methods and techniques of surveillance programs. Currently existing surveillance programs at the field level will be discussed in detail. The course will elaborate on the rationale and the need of such a program along while reinforcing the public health approach towards surveillance. It will seek to develop programmatic skills at the analytical and managerial level.

Learning objectives

At the end of the course, the participants will be able to:

1) Recognize the role of surveillance in modern public health practice
2) Understand the importance of quality data sources for surveillance
3) Establish, conduct and monitor a surveillance system
4) Analyze surveillance data at the local level
5) Carry out identification and selection of a surveillance site
6) Reinforce the Integrated disease surveillance project functioning and management

Content areas

1) Introduction to surveillance
    a) Definition and history of surveillance
    b) Purposes of surveillance
2) Basic concepts in surveillance
    a) Acute and chronic disease surveillance
    b) Active and passive surveillance
    c) Sentinel surveillance

3) Establishment of a surveillance system

   a) Potential sources of data

   b) Challenges in surveillance programs for developing countries

   c) Health problems of public health importance to be under surveillance

   d) Devising appropriate case definitions for surveillance

   e) Inter and intra-sectoral coordination in surveillance program

   f) Establishment of a reporting format

   g) Analysis and dissemination of surveillance data

4) Evaluation of a surveillance system

5) National programs for surveillance; NSPCD to IDSP

   a) Integration and IDSP

   b) Staffing and organizational set up under IDSP

   c) Diseases under surveillance in IDSP

   d) Reporting units

6) MIS under IDSP

   a) Reporting formats at different levels

   b) Data handling under IDSP

7) Partnerships in IDSP

   a) Forging and managing partnerships

8) Outbreak; Diagnosis and follow-up action under IDSP

   a) Prediction of outbreaks and time trends of diseases

   b) Diagnosing an outbreak

   c) Outbreak response

9) NCD surveillance in IDSP

   a) Need for NCD surveillance

   b) Survey conduction

10) Use of information technology in IDSP

Lecture No.	Lecture Topics	Activity
1	Introduction to surveillance Definition and history of surveillance Purposes of surveillance	Lectures Group discussion Report writing
2 – 3	Basic concepts in surveillance Acute and chronic disease surveillance Active and passive surveillance Sentinel surveillance	Lectures Group discussion Report writing
4 – 5	Establishment of a surveillance system Data sources Case definitions for surveillance Inter and intra-sectoral coordination Reporting formats Data analysis and dissemination	Lectures Group discussion Seminars
7	Evaluation of a surveillance system Criteria for evaluation Sensitivity, timeliness, representativeness, PPV, acceptability, flexibility, simplicity, costs	Report writing
8 – 9	National programs for surveillance; NSPCD IDSP Integration and IDSP Staffing and organizational set up under IDSP Diseases under surveillance in IDSP Reporting units	Panel discussion Group discussion
10	MIS under IDSP Reporting formats at different levels b) Data handling under IDSP	Lectures Group discussion
11	Partnerships in IDSP Forging and managing partnerships	Lectures Group discussion Presentation assignments
12 – 13	Outbreaks under IDSP Prediction and time trends Outbreak response	Group discussion
14	NCD surveillance in IDSP Need for NCD surveillance Survey conduction	Group discussion
15	Use of information technology in IDSP	Guest Lecture Panel discussion

Course grading scheme
Internal Evaluation

ACTIVITIES	%
Class Participation	15
Group Assignment	10
Group Presentation	15
Viva Voce	10
Module exam	50

Course resource:

Key readings

1. Detels R, McEwen J, Beaglehole R, Tanaka H eds. Oxford Textbook of Public Health. 4th Ed. Oxford University Publications. 2004
2. GOI. IDSP program modules
3. Bean, N.H and Martin S.M (1992). PHLIS. American journal of public health, 82, 1273-6
4. CDC (1998). Guidelines for evaluating surveillance systems. Morbidity and Mortality weekly report, 37 (S-5)
5. Doll R. (1974). Surveillance and monitoring. International journal of epidemiology, 3, 305-14
6. Henderson D.A. (1976). Surveillance of smallpox. International journal of epidemiology, 5, 19-28
7. Henderson D.A. (1998). Eradication: lessons learnt from the past. Bulletin of the WHO, 76, 17-21

Health Policy

Course Overview

This course aims to acclimatize students to the multifaceted nature of health policy processes, with a focus on the contexts of India and other developing societies, and to introduce them to frameworks and approaches commonly used in making policies and analyzing policy processes. Prominent contemporary themes in health policy will be discussed using a framework of policy process, actors, context and content.

The course will combine sound foundational teaching with an emphasis on applied knowledge, drawing liberally from case studies and encouraging students to relate theories with real-life issues and problems.

Learning Objectives

1. Be familiar with the contents and the significance of important national and global health policies and programmes
2. Appreciate the multi-faceted nature of the policy response in public health
3. Conceptualize the superstructure of public health and health delivery, and enlist major institutions
4. Describe key types of distributive and regulatory approaches in public health policy
5. Be familiar with a simple policy framework which will assist them in critically reviewing health policy issues which they are likely to encounter in their working lives

Content

1. Introducing Health Policy
   - Definitions of Policy
   - Types of policy – distributive, redistributive, regulatory, constituent
   - Defining Health Policy, examples of health policies
   - Philosophies of Health Policy – rationality, equity, justice, rights
   - Resources for health – financial, human, material
   - Health institutions – service delivery, administrative, regulatory, policy-making
   - Complexity - state vs. private role in health, policy actors and interests, utility of policy triangle

2. Health Policies, Programmes and Institutions

- Listings of National Health Policies
- Contents of key national health policies
- International health policies and contents
- Listing of National Health Programmes
- Service Delivery institutions
- Regulatory institutions
- Ideating institutions – planners, think tanks, vision-setters

3. Human and Material Resources for Health
   - Listings of resources
   - Production of resources
   - Distribution of resources
   - Approaches to distribution of resources
   - Indian government's approach
   - Contemporary issues and concerns

4. Financial Resources for Health
   - Distribution and management of finances
   - Accounting for finances
   - Approaches to financial management and distribution
   - Indian government's approach
   - Contemporary issues and concerns

5. Comparative Health Policy
   - Cross-national comparisons in institutional systems – service delivery, regulation, policymaking and ideation, extent of state and private role, civil society role
   - Management of human resources
   - Management of material resources
   - Managing financing
   - Case studies: Good Health at Low Cost

6. Framework for Studying Policy
   - Type and scale of policy
   - Policy life-cycle
   - Stakeholder approaches
   - Policy process
   - The policy triangle – actors, processes, contexts, content

7. National Health Policies and programmes
   - Treatment of health in the constitution
   - National Health Policy
   - Historically important health policies
   - Legal frameworks for health
   - Major health programmes under the MOHFW
   - National Rural and Urban Health Missions

8. Primary Health
   - Declarations around Primary Health and subsequent modifications
   - Historical processes
   - Principles of Primary Health
   - Local, national and global dimensions
   - Primary Health today

9. International Health: Players and Priorities
   - Major donors in India and globally
   - International health governance and priorities
   - Policy transfer: the interface between national and international health policy domains

10. Globalization and Health
   - Impact of globalization on health markets, cultures
   - International laws, trade agreements impacting on health
   - Global health inequities

11. Private Sector and Health
   - Role of the private sector in health care delivery
   - Composition of the private health sector
   - The private sector in related areas – health technology, pharmaceuticals, health insurance, other
   - Regulation of the for-profit private health sector
   - Prominent civil society organizations in health, and their roles
   - Public–private partnerships in health

12. Governance in Health
   - Planning for large populations
   - Oversight, priority setting
   - Accountability

13. Policy Advocacy for Health
   - Why advocacy in health? How to advocate.
   - Actors and processes in advocacy
   - Case studies
   - Aligning advocacy with health needs
   - Contexts of advocacy – political, social, economic, cultural

Readings

1. GOI (2002). National Health Policy. Dept. of Health, Ministry of Health and Family Welfare, New Delhi

2. Gupta, J. & Sood, A. eds., 2005. Contemporary Public Health: Policy, Planning, Management, New Delhi: Apothecaries Foundation.

Lecture Plan

	Topic	Hours	Resource Person
1	Introduction to Health Policy	1	Sunil George
2	Health Policy Framework	1	Sunil George
3	National Health Programmes	1	Syed Abbas
4	Primary Health Care	1	Sunil George
5	Role of Private Sector in Health	1	Kabir Sheikh
6	Regulation of Private Sector	1	Kabir Sheikh
7	National Health Policy	1	Kabir Sheikh
8	International health -Players and Priorities	1	Kabir Sheikh
9	Comparative Health Policy	1	Syed Abbas
10	Globalisation and Health	1	Preeti Kumar
11	Financial Resources for Health	1	Shakti
12	Human and Material Resources for Health	1	Shakti
13	Public Health Governance	1	Sanjay Zodpey
14	Public Private Partnerships in Health	1	Preeti Kumar
15	Public Health Advocacy	1	Subhadra Menon
16	Doing a Policy Analysis	1	Sunil George
	Total	16	

Logistic Planning and Drug Distribution

Course overview

The objective of this course is to equip participants with tools to reduce cost and improve service levels in logistics systems in health care organizations. It covers the planning, organization, and control of activities such as transportation, inventory management, purchasing, customer (target audience) service standards, and product scheduling—is specifically designed to help participants solve actual challenges that they encounter in their organization.

Content areas

1) Introduction to Logistics Management
    a) To understand logistic systems and importance of logistics management in service organizations with emphasis on health care organizations
    b) Understand the concept and various stages of supply chain
    c) Identify the logistics decisions
    d) Understand the emerging trends in logistics management
2) Forecasting logistics requirements
    a) Understand the importance of forecasting for better logistics decisions
    b) Understand the types of data used for forecasting
    c) Identify patters in data used for forecasting
    d) Use statistical methods for forecasting
3) Designing logistics networks
    a) Understand the meaning of logistic network and its importance
    b) Understand the strategic importance of facility location decision
    c) Identify factors affecting facility location decision for health care organizations
    d) Distinguish between factors important for singe facility and multi-facility location decisions
    e) Use quantitative methods for location decision
4) Inventory Management
    a) Understand the importance of inventory for health care organizations
    b) Understand the different types of inventory systems and factors that lead to the classification

c) Understand the role of selective inventory control in classifying inventory items for better control

d) Use quantitative methods for decision like optimal order quantity and reorder policy

e) Understand the concept of service level for uncertain demand

5) Transport strategy

a) Understand the importance of an effective transport strategy for health care organization

b) Understand how transportation is one of the major cost contributor

c) Distinguish between factors affecting cost and effectiveness of long haul and local transportation systems.

d) Understand criteria for selecting transportation services

e) Understand vehicle routing and scheduling problems.

f) Understand how service delivery for health care organization can be improved through routing and scheduling

6) Managing logistic information

a) Understand the role of relevant and correct information for better logistics decisions

b) Identify sources of information within and outside the organization that can be used for logistics decisions

c) Role of Information management through software solutions like ERP and how they can be used in logistics management

d) Understand the emerging role of internet and technologies like Geographic Positioning Systems, Geographic Information System

e) Understand basic decisions related to purchasing and importance of collaboration with suppliers

7) Logistics Outsourcing

a) Understand organizational structure required for the management of logistic functions

b) Identify alternatives logistic organizational structures

c) Distinguish between in-sourcing and out-sourcing of logistics activities

d) Understand why outsourcing can be a lucrative option for public health organization

e) Understand the advantages and disadvantages of outsourcing

Lecture No.	Lecture Topics	Activity
1	Introduction to logistics system Concept of Supply Chain	Lecture
2	Logistics Managerial issues Logistic decisions	Lecture
3	Logistics Management problems in Health care systems	Lecture & Group Discussion
4	Logistics strategy and planning for health care Emerging trends in logistics	Lecture
5 – 6	Need for scientific forecasting Qualitative forecasting methods Quantitative forecasting methods Causal methods Time series	Group Discussion Lecture
7	Designing Logistic network Location problems Location of health care facilities Factors affecting location decisions Facility location methods	Collaborative Learning
8	The network planning process Data for network planning	Lecture
9 - 11	Inventory management problem Selective inventory management: ABC, VED, etc. Push and Pull type inventory systems Relevant inventory costs Classification of inventory models Models with quantity discounts Concept of safety stock, service level Purchasing policies	Lecture
12	Planning and managing routing and transportation Objectives of routing and scheduling problems Types of routing and scheduling problems Routing service vehicles Scheduling service vehicles	Lecture Participant Assignment
13	Managing logistic Information Supply scheduling Purchasing ERP systems: Use in logistics management Internet and e-commerce in logistics management E-Purchasing: Issues and Challenges	Lecture Case study Seminar
14 – 15	Logistic organization Organizing logistic efforts Organizational choices Global logistics environment Logistics outsourcing Trends in outsourcing logistics Advantages and disadvantages of logistics	Lecture Group Discussion

	outsourcing Basic logistic audit	

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	15
Article review	15
Group Projects	20
Module exam	50

Key readings

1. Ballou, R.H. (1992): 'Business logistics management', Prentice Hall.
2. Ghiani, G., Laporte, G. and Musmanno, R. (2004): 'Introduction to Logistics Systems Planning and Control', John Wiley and Sons, Ltd.
3. Blanchard, S.B. (1998): 'Logistics engineering and management', Prentice Hall.
4. Browne, M. and Allen, J. (2001): 'Logistics Outsourcing', In Brewer, A.M. Button, K.J.and Hensher, D.A. (Editors) Handbook of Logistics and Supply Chain Management, Pergamon.
5. Finkler, S.A. and Ward, D.M. (2006): 'Accounting fundamentals for healthcare management', Jones and Bartlett.
6. Haksever, C., Render, B., Russel, R.S. and Murdick, R.G. (2000): 'Service Management and Operations', Pearson Education.

Urban Health

Course Overview

Urban population is evidencing a rapid increase with every passing decade. A rapid population growth has an impact on the provision of health care services as well as health indicators. The urban population has ready access to hospitals and services, but suffers from a deficiency of financial means. Urban slum dwellers have health indicators poorer than the rural areas. This course is designed to provide an insight into the issues confronting the health planners and management experts in urban health. The course will encompass problems and challenges in service delivery and explore solutions thereof.

Learning Objectives

At the end of the module, the participants will be able to:

1. Understand the nature of health problems in urban situation in the country
2. Examine the urban health care delivery system from an administrative perspective
3. Identify the strengths and weaknesses of the system
4. Identify areas of deficiency between the needs of the population and the service provision
5. Address specific problem areas in urban health

Course Content would cover:

Urban health problems, indicators, prevention, socio-economic disparities and interventions.

Course grading scheme

Internal Evaluation: Class participation and group presentation

Course resources

Recommended Readings:

1. Agarwal, Siddharth and Sangar, Kirt, Need for Dedicated Focus on Urban Health within National Rural Health Mission, Indian Journal of Public Health, Vol. 39/3(Sept 2005)
2. Akhtar, R., (ed.) Urban Health in the Third World. APH Publishing Corporation New Delhi, 2002.

3. Asthana, Sheena (1995). Variations in Poverty and Health between slum settlements: Contradictory findings from Visakhapatnam, India. Social Science & Medicine, 40(2), 177-188.
4. Awasthi, Shally and Agarwal, Siddharth; Determinates of childhood Mortality and Morbadity in Urban Slums in India. Indian Padiatrics. Vol.48. No. 12. Dec. 2003
5. Bose, Ashish, India's Urban Population, 1991 Census Data, States, Districts, Cities and Towns, Wheeler Publishing, New Delhi, 1994
6. Economic Intelligence Service, Basic StatisticsRelating to the Indian Economy, Centre for Monitoring Indian Economy, Bombay, 1994
7. Economic Intelligence Service,, World Economy and India's Place in it, Centre for Monitoring Indian Economy, Bombay, 1994
8. Gore M.S., Yesudian C.A.K. October 1981. Urban poor and social ferment. Problemes de croissance urbaine dans le monde tropical. Travaux et Documents de Geographie Tropicale.
9. Harpham ,T., Lusty, T., and Vaughan, P. (ed) (1998). In the shadow of the city. Oxford University Press, New York.
10. Harpham, T., Tanner, M., (eds) (1995). Urban Health in Developing Countries: Progress and Prospects. Earthscan Publications Limited, London.
11. Levin A C E. et al. (ed.) 'Working Women in an Urban Setting: Traders, Vendors, and Food Security' International Food Policy Research Institute, Discussion Paper, Washington, U.S.A.
12. National Consultation on Improving the Health of the Urban Poor-Lessons Learned and Way Forward (Bangalore Workshop Report)
13. Goenka S, Ajay V, Jeemon P, Prabhakaran D, Varghese C, Reddy KS. Powering India's Growth. IC-Health, Center for Chronic Disease Control, World Health Organisation-Country Office, Public Health Foundation of India; 2007.
14. Rao, M.S.A., Urbanization and Social Change. Rao, M.S.A. (ed.), Urban Sociology in India, New Delhi : Orient Longman, 1973
15. Yesudian C A K. Urban Health Determinants and Indicators: A Review of Literature, WHO Centre for Health Development. Kobe, Japan September 1997.

Project Management

Course overview

As the financial outlay in the Public Health sector goes up, there is increasing demand on demonstration of results of interventions. This is also coupled by the fact that the number of Public Health issues demanding immediate attention is increasing and there is heightened need for achieving maximum impact with the minimum resources available. Scientific principles in managing projects not only aid the manager, planner and the worker to achieve better results, but also renders the required accountability to the program. It provides the manager with required tools to plan, manage implementation and evaluate interventions in a way that is evidence based and replicable. This course would introduce students to the Principles of Project Management and build skills in using certain tools in various stages in Project Management.

Learning objectives

By the end of the course the participants would be able to:

- Understand the Project Life Cycle and relate different project activities to different phases in the Project life.
- Use identified Project Management tools in different Project phases to aid management.
- Appreciate the importance of stakeholders and the principles of partnership in Project Management
- Use standard tools in Project management for conducting Stakeholder Analysis and prepare a stakeholder management plan
- Completely understand and prepare a Logical Framework for Project planning, implementation and monitoring
- To identify and develop key indicators and develop a Monitoring and Evaluation plan

Course content

Lecture Topics	Teaching/Learning Activities	
	Activities	Assignments

Course Overview Introduction to Project Management Project Cycle Management	Input/Discussion	
Approaches to Project Management – 1 Results Based Management	Input/Discussion	
Approaches to Project Management -2 The systems approach	Input/Discussion	Read the case study provided
Stages and tools in Project Cycle Management – Scenario definition - Needs Assessment - SWOT	Input/Discussion	
Stages and tools in Project Cycle Management – Scenario definition - Stakeholder Management	Lab	
Stages and tools in Project Cycle Management – Design and Development - Objectives - The logical Framework	Input/Discussion	
Stages and tools in Project Cycle Management- Implementation and Monitoring Introduction to Implementation tools Supportive supervision	Input/Discussion	
Stages and tools in Project Cycle Management- Implementation and Monitoring Activity Plans, Gantt Charts	Lab	
Stages and tools in Project Cycle Management- Implementation and Monitoring Introduction to Monitoring and Evaluation Indicators	Input/Discussion	
Managing NGOs	Input/Discussion	

Course grading scheme

Students would participate in Class presentations in groups and would be graded on the presentation and participation in Group work. There would be a written Term exam.

Course resources: (Reading materials, required textbooks)

1. Handbbok on Project Management (provided)

Project Management for Health Programs

No. of days: 10 days No. of Classes: 30

Day	Session	Topic	Type	Materials needed
1	1	Course Overview Introduction to Project Management Project Cycle Management	Input/Discussion	LCD projector, Screen, White Board, Markers
	2	Approaches to Project Management – 1 Results Based Management	Input/Discussion	LCD projector, Screen, White Board, Markers
	3	Approaches to Project Management -2 The systems approach	Input/Discussion	LCD projector, Screen, White Board, Markers
2	4	Stages and tools in Project Cycle Management –Scenario definition - Needs Assessment - SWOT	Input/Discussion	LCD projector, Screen, White Board, Markers
	5	Stages and tools in Project Cycle Management –Scenario definition - Needs Assessment - SWOT	Input/Discussion	LCD projector, Screen, White Board, Markers
	6	Stages and tools in Project Cycle Management –Scenario definition - Needs Assessment - SWOT	Lab	Flip charts, permanent markers (10)
3	7	Stages and tools in Project Cycle Management – Scenario definition - Stakeholder Management	Input/Discussion	LCD projector, Screen, White Board, Markers
	8	Stages and tools in Project Cycle Management – Scenario definition - Stakeholder Management	Lab	Flip charts, permanent markers (10)
	9	Stages and tools in Project Cycle Management – Scenario definition		Flip charts, permanent

		- Stakeholder Management		markers (10)
4	10	Stages and tools in Project Cycle Management – Design and Development - Objectives - The logical Framework	Input/Discussion	
	11	Stages and tools in Project Cycle Management – Design and Development - Objectives - The logical Framework	Input/Discussion	
	12	The Logical Framework –Design and Development The Results chain	Lab	Flip charts, permanent markers (10)
5	13	Stages and tools in Project Cycle Management- Implementation and Monitoring Introduction to Implementation tools Supportive supervision Classical tools in Project Management	Input/Discussion	
	14	Stages and tools in Project Cycle Management- Implementation and Monitoring Activity Plans, Gantt Charts	Lab	Flip charts, permanent markers (10)
	15	The Logical Framework –Design and Development Risks and assumptions	Lab	Flip charts, permanent markers (10)
6	16	The Logical Framework –Design and Development Risks and assumptions		
	17	Stages and tools in Project Cycle Management- Implementation and Monitoring Introduction to Monitoring and Evaluation	Input/Discussion	
	18	Stages and tools in Project Cycle Management- Implementation and Monitoring - Indicators	Input/Discussion	Flip charts, permanent markers (10)
7	19	Stages and tools in Project Cycle Management- Implementation and Monitoring Developing Indicators Monitoring Plan Evaluation Plan	Lab	Flip charts, permanent markers (10)

	20	Stages and tools in Project Cycle Management- Implementation and Monitoring Developing Indicators Monitoring Plan Evaluation Plan	Input/Discussion	
	21	Stages and tools in Project Cycle Management- Implementation and Monitoring Developing Indicators Monitoring Plan Evaluation Plan	Input/Discussion	
8	22	Guest lecture		
	23			
	24		Input/Discussion	
9	25	Guest Lecture		
	26			
	27			
10	28	Student presentations		
	29			
	30			

Management of MCH/RCH

Course overview

This module is designed to build upon concepts taught in earlier courses under NRHM towards effective utilization of skills in the context of the RCH programs. In addition, it will also refresh an understanding of the salient features of RCH. The course will also be designed to improve the evaluation skills of supervisors for the program activities.

Learning objectives

At the end of the module, the participants will be able to:

1. Develop an acquaintance with the RCH Program
2. Identify the impact of improved management skills on programmatic outcomes
3. Outline the management aspects relevant to their level of functioning in the context of the RCH
4. Perform an evaluation of the programmatic activities in their area

Lecture No.	Lecture Topics	Activity
1	History of Maternal and Child health Programs in India,	Lecture
2	Scope & Functions of RCH-II	Lecture
3-10	Maternal and Child death audits including data collection from field	Lecture, Visit to Health centres & Group presentations
11	Access and utilization of care under RCH	Lectures
12	Components of adolescent care under RCH	Lectures & Seminars
13	PIP for vulnerable groups in RCH	Lecture
14-19	IMNCI Operational plan	Lectures & Hands on exercise
20-24	Supportive supervision and monitoring in RCH /Validation exercise	Field visit
25	Data quality in RCH	Exercise
26-30	Designing effective monitoring tools in ANC ,PNC & Immunization	Group Exercise & Field testing

Course grading scheme
Internal Evaluation

ACTIVITIES	%
Class Participation	15
Group Assignment	15
Group Presentation	10
Viva Voce	10
Module exam	50

Course resources

Key Readings

1. Jugal Kishore. National Health Programmes: National Policies & Legislation related to Health. 7th Edition, 2005
2. IMNCI-Module No. 1-9 (UNICEF-India)
3. State & National PIP documents of RCH-II (Government of India)

Human Resource Management & Organizational Behaviour

Course overview

With the expansion in health care specialization and demands, there is an increasing need that the scarce resources available for public health are put to best use. Health care is in urgent need of leadership at the local and regional level with an acute shortage of man-power with efficient managerial skills. The module will seek to introduce the participants to the basic skills necessary of a public health manager. They will be introduced to human resource management issues including organizational behavior and the task of defining strategy and goals, developing and nurturing people, measuring performance and marketing the organization's services. It will also familiarize the participants with the dimensions and culture of management and the tools for playing the managerial role in their areas of functioning. It will seek to do so with a problem solving approach relevant to the needs of the functionaries. The module will also introduce the participants to the human resource challenges in health at global and local level.

Learning objectives

At the end of the module the participants will be able to:

1. Better understand the functions and structure of Human Resource System(HRS)
2. Explain different dimensions of HRS
3. Gain familiarity and understanding of basic terms used in Human Resource Management (HRM)
4. Describe about the global as well as local issues and challenges in Human Resource Management
5. To understand the relevance of the subject and the terms used in OB and its significance
6. To learn the main aspects of OB at cognitive and behavioral level
7. To understand one's own styles and behavioral dimensions with the help of simulation exercises and instruments to become effective managers

Content areas

Lecture No	Lecture Topics	
1	Outline of the Course- Objective	Activities

2	Concept of Human Resource System(HRS): Dimensions, Function and Structure of HRS Designing the HRS	Lecture
3	Importance of HR in Healthcare(India perspective) Human resource issues in India Understanding the role and analyzing the role	Lecture & Discussions
4	Recruitment and Selection-I Human Resource issues: Worldwide perspective; Manpower planning	Lecture & Discussions
5	Performance management-I Induction, Placement, Training Discussion on Health workers global profile: WHR-2006 Discussion on Responding to the urgent needs healthy needs in Human resources	Lecture & Discussions
6	Performance management-II Performance Appraisal Discussion on strategies for preparing Health workforce Potential appraisal and 360 degree appraisal	Lecture & Discussions
7	Discussion on strategies to manage exits of the Health workforce Reward Management Performance review and counseling	Lecture & Discussions
8	Gender sensitivity Training Role efficacy	Lecture & Discussions
9	Labour laws and Industrial relations I(Workmen's compensation act) Labour laws and Industrial relations II(Industrial Disputes act: 1947 and Factories act: 1948)	Lecture & Discussions
10	Attitudes, Values & Job satisfaction	Lecture & Discussions
11	Motivational Process, Achievement motivation- Tower Building	Lecture & Discussions, exercises
12	Attribution Process, Personal Effectiveness, Role and Role Effectiveness	Lecture & Discussions
13	Frustration and burnout	Lecture & Discussions
14	Managerial roles, Functions and styles	Lecture & Discussions
15	Communication	Lecture & exercises

16	Effective Teams, Consensus Building: (Desert Survival)	Lecture & exercises
17	Leadership theories and styles, Organizational Culture	Lecture & exercises

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	
Assignments	Assignment 1: 20% Assignment 2: 20% Assignment 3: 20%
Group Projects	Group projects and assignments were same
Module exam	40%

Course resources: (Reading materials, required textbooks)

1. Managing human resource for healthcare in India: A case study of MP & Gujarat
2. Not Enough Here, Too many there: Health workforce in India
3. Working Together for Health: WHR, 2006
4. Human Resources for Health in India's National Rural Health Mission: Dimension and Challenges

Additional Readings / Recommended Readings:

1. Designing and managing the Human resource system: Udai Pareek and TV Rao

2) Organizational Behavior: Stephen P. Robbins: Eleventh Edition: Princeton Hall

3) Understanding Organizational Behavior: Udai Pareek: Second Edition: Oxford University Press

4) Organizational Behavior Process: Udai Pareek: Rawat Publications

Quality, Equity & Access to Health Care

Course overview

The course deals with quality assurance, equity and access to health care. Quality assurance (QA) can be defined as all activities that contribute to defining, designing, assessing, monitoring, and improving the quality of healthcare. Quality assurance activities are an integral part of health care systems. The course work is directed towards bringing out the relationship between quality and equity and hence a new definition of access to healthcare. It will enable the participants to be responsive to demands expected from them.

Learning objective

At the end of the module the participants will be able to:

1. Recognize the inter-relationship between quality, equity and access to healthcare
2. Define quality of service and institute mechanisms to ensure it in the program context
3. To learn basic principles of quality assurance in health care
4. To understand the essentials of quality norms / SOPS that have to be followed as different levels of health care institutions of public health
5. To understand equity in health care
6. To gain an idea on use of different indices of equity

Content areas

Lecture No	Lectures Topics
1	Course Overview
	Introduction of Quality Assurance Principles of Quality assurance Dimensions of Quality
2.	Overview of Quality Access and Equity Approach
3.	Tools of Quality

4	HEALTH INEQUALITIES IN INDIA: CHALLENGES FOR POLICY -Inter state variations -Urban rural differentials
5	QA triangle & Quality circle, standards of quality
6	Socio-cultural and gender issues in ensuring equity for health care.
7	How accessibility affects quality in health service delivery: A case study from Malkangiri, Orissa
8	Quality assurances in public sector hospital; experiences of World Bank.
9	Qty improvement Prog (NABH & NABL)
10	Group work presentation and take home exam

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Class Participation	15
Group Assignment	15
Group Presentation	20
Module exam	50

Course resources

Recommended Readings:

Quality Assurance

1. Brown, Lori DiPrete et al., Quality Assurance Methodology Refinement Series: Quality Assurance of Health Care in Developing Countries, Quality Assurance Project
2. Gupta, J. P and Sood A.K, "Chapter 2.10: Quality of Care" in Contemporary Public Health: Policy, Planning, Management, Apothecaries Foundation: New Delhi, 2005: 2.57-2.61
3. Gupta, J. P and Sood A.K, "Chapter 9.5: Management Science Methods", in Contemporary Public Health: Policy, Planning, Management, Apothecaries Foundation: New Delhi, 2005: 9.49-9.80

4. Kaluzny, Arnold D., "Applying Total Quality Management concepts to Public Health Organizations", Public Health Reports, May-June, Vol. 107, No. 2: pp 257-64.
5. Kurtz, Richard S., "Quality Assurance and Quality Improvement" in Rober Wallace (ed.) Public Health and Preventive Medicine, McGraw Hill Medical: New York, 2008: 1277- 1280
6. Mallapaty, Gabriele, Quality Assurance Training Programme for Primary Healthcare Laboratory Services, 2000 (Unpublisehd)
7. Nicholas, D. D. et al., "The Quality Assurance Project: Introducing Quality Improvement to Primary Health Care in Less Developed Countries", Quality Assurance in Health Care, Vol. 3, No. 3: 147- 165, 1991.
8. Quality Assurance Project, "Methods & Tools for QA in Healthcare", http://www.qaproject.org/methods
9. WHO, Primary Health Care Thesaurus, Volume I: A List of Service and support activities, Primary Health Care Operations Research Project, Center For Human Services
10. WHO, Tools and Methods for Health System Assessment: Inventory and Review, WHO: Geneva, 1998.

Equity and Access

1. Deaton, Angus S.,Health, Inequality, and Economic Development(June 2001). NBER Working Paper No. W8318. Available at SSRN: http://ssrn.com/abstract=272680
2. Dilip, T. R. "Extent of Inequity in Access to Health Care Services in India", in Gangolli, Duggal, Shukla (eds.) Review of Healthcare In India, Centre for Enquiry into Health and Allied Themes, pp. 247-268, 2005
3. Duggal, Ravi, "Public Health Expenditures, Investment and Financing Under the Shadow of a Growing Private Sector", in Gangolli, Duggal, Shukla (eds.) Review of Healthcare In India, Centre for Enquiry into Health and Allied Themes, pp. 225-246, 2005
4. Feechem, R.G.A., "Poverty and Inequity: A Proper focus for the new Century", Bulletin of WHO 78/2000: 1-2.
5. Gakidou, E.E., et al., "Defining and Measuring Health Inequities: An approach based on the distribution of health expectancy", Bulletin of WHO 78/2000: 42-54
6. Gupta Indrani 2004. Inequities in Health and Health Care in India : Can the Poor Hope for a Respite? http://iegindia.org/dis_ind_80.pdf
7. Gupta R. Smoking, educational status and health inequity in India. Indian J Med Res 2006; 124 : 15-22.http://icmr.nic.in/ijmr/2006/july/0706.pdf
8. Makinen M, Waters H and Rauch M., Inequalities in health care use and expenditure: Empirical Evidence from Developed countries in Transition, Bulletin of WHO 78/2000: 55-65
9. Roy, T.K., Sumati Kulkarni, Y. Vaidehi, 'Social Inequalities in Health and Nutrition in Selected States', Economic and Political Weekly, Feb 14, 2004, p.677-83.
10. Schuftan, Claudio, "Poverty and Inequity in the Era of Globalization: Our Need to Change and to Re-conceptualize", International Journal for Equity in Health 2003, 2/4:1-7 (http://www.equityhealthj.com/content/2/1/4)

11. Sen, G., Aditi Iyer and Asha George, 'Structural Reforms and Health Equity: A Comparison of NSS Surveys, 1986-87 and 1995-96', Economic and Political Weekly, April 6, 2002, p.1342-1351.
12. Srinivasan, K and S.K. Mohanty, 'Deprivation of Basic Amenities by Caste and Religion: Empirical Study Using NFHS Data', Economic and Political Weekly, Feb 14, 2004, p.728-35.
13. Subramanian S. V., et al., Income inequality and the double burden of under- and over nutrition in India, J Epidemiol Community Health 2007;61:802–809 http://jech.bmj.com/cgi/reprint/61/9/802.pdf
14. Subramanian, S.V., et al., "The Mortality Divide in India: The Differential Contributions of Gender, Caste, and Standard of Living across the Life Course", American Journal of Public Health, 96 (5) May 200: 812-25.
15. Wagstaff, Adam, "Socioeconomic Inequalities in Child Mortality: Comparisons across nine developing countries" Bulletin of WHO 78/2000: 19-29

Health Management Information System (HMIS)

Course overview

Reliable information for translation into effective policies is the need of the hour. Developing countries face a challenge in the collection, analysis, dissemination and use of relevant data for programmatic and policy purposes. Developing countries usually have an under investment in health information systems. The need for reliable data has further increased especially in the context of health sector reforms and the Millennium Development Goals (MDGs). The module will acquaint participants with the data collection system/ Health information systems (HIS) operating at various levels in the country. It will also seek to highlight routine and special data collection efforts with their advantages and limitations.

Learning objectives

At the end of the course the participants will be able to:

1. Identify sources of data for decision making in health
2. Identify the strengths and weaknesses of the various data sources
3. Utilize existing data for effective decision making

Course content

Day - 1

1. HMIS- Introduction, basic Concepts & definitions
2. Process of community diagnosis using HMIS
3. Introduction to information cycle –
    a. Data collection
    b. Data Processing
    c. Data analysis
    d. Data Presentation
    e. Interpretation
    f. Use of information for action
4. Data quality
5. Integration of routine HMIS with other program specific HMIS.
6. Management of HMIS

Day -2

1. NRHM Key interventions & required monitoring
2. Lacunae of pre existing HMIS
3. HMIS reform- Principles & concepts
4. Stages of HMIS implementation
5. Progress made so far
6. Challenges
7. Future directions & way ahead
8. Use of HMIS data into routine planning and management- Some examples from various states.

Course grading scheme

ACTIVITIES	PERCENTAGES
Class Participation	15
Article review	15
Group Projects	20
Module exam	50

Reading resources

1. HEALTH MANAGEMENT INFORMATION SYSTEM toolkit: USE OF HMIS:DHIS 2, National Health Systems Resource Centre
2. HEALTH MANAGEMENT INFORMATION SYSTEM toolkit: Use of computers – a beginners' guide, National Health Systems Resource Centre
3. HEALTH MANAGEMENT INFORMATION SYSTEM toolkit: Use of Information for Action, National Health Systems Resource Centre
4. List of articles:

1	Over Reporting of RCH services coverage and operational problems in health management information system at the sub-center level	R. Verma and S. Prinja
2	IT enabled applications in government hospital in India; Illustrations of telemedicine, e-governance, and BPR	K.V. Ramani
3	Scaling of Health Information System in India: Challenges and Approaches	Sundeep Sahay
4	Telemedicine: A new horizon in Public Health in India	Aparajita Dasgupta

5	Managing with Maps? The development and institutionalization of a map-based health management information system in Madhya Pradesh, India	De Costa, V. Saraf
6	Information for decision making from imperfect national data: Tracking major changes in health care use in Kenya using geostatic	Peter W Gething, Abdislan m Noor
7	Telemedicine in rural India	Sanjit Bagchi
8	HMIS and decision making in Zambia rethinking information solutions for district health management in decentralized health systems	Richard I Mutemwa
9	Design and implementation of health management information system in Malawi: issues, innovations and results	Chet n Chaulagai
10	Social construction of software customizing: The case of health information system from Mozambique and India	Jose Leopoldo Nhampossa and Sundeep Sahay
11	Monitoring Reproductive and Child Health program in Gujarat	Dr. Nirmmal Murthy
12	Development of telemedicine technology in India- Sanjeevani an integrated telemedicine application	Sood sp, Bhatia JS

Management of National Health Programs

Course overview

This module is designed to improve the managerial capabilities of the staff as envisioned under the national health programs. National health programs involve several aspects of management specific activities. This course will build upon concepts taught in earlier courses towards effective utilization of these skills in the context of the national programs. In addition, it will also refresh an understanding of the salient features of national health programs, with a special emphasis on monitoring and evaluation of activities. The course will also be designed to improve the evaluation skills of supervisors for the program activities.

Learning objectives

At the end of the module, the participants will be able to:

1. Develop an acquaintance with the health system in India
2. Appreciate the importance and role of public health management skills in the program context
3. Identify the impact of improved management skills on programmatic outcomes
4. Outline the management aspects relevant to their level of functioning in the context of the national programs
5. Perform an evaluation of the programmatic activities in their area

Content areas

1) Systems approach
   a) Aims, goals, targets and objectives
   b) Input, process, output, outcome and impact

2) Health Care Delivery System in India
   a) Organization of Health Services in Rural & Urban areas
   b) Role of Private Sector and Civil Society

c) AYUSH

d) Informal Providers

e) Health care delivery systems in developed countries – Lessons for India

Lecture Topics	Activity
Health Care Delivery System in India Organization of services	Lecture Group Discussion
Role of various sectors: Public and private; modern and traditional Role of Civil Society	Lecture Group Discussion
Health care delivery systems in developed countries – Lessons for India	Article review
National Health Programmes	Participants Assignments Presentations
Evaluation of a health programme	Lecture Group Discussion
NRHM	Seminar

Course grading scheme
Internal Evaluation

ACTIVITIES	MARKS
Class Participation	10
Group Assignment	10
Group Presentation	15
Class Discussion	15
Total	50

Course resources

Key Readings

1. Koivusalo, Meri and Eeva Ollila (1997) Making a Healthy World: Agencies, Actors and Policies in International Health. Zed Books, London.
2. Michael H. Merson, Robert E. Black and Anne J. Mills International Public Health: Diseases, Programs, Systems and Policies, 2nd edition.
3. J. Kishore (2005), 'Health Legislations' in National Health Programmes of India, Century Publications, New Delhi.

4. Jugal Kishore. National Health Programmes: National Policies & Legislation related to Health. 4th Edition, 2002

Health Systems and Health Sector Reforms

Course Overview

In recent years there has been an increased focus in both developed and developing countries on existing and evolving health systems. This has been in response to a realization among the global community that instead of the piecemeal approach to health issues and problems, there is need to develop a more holistic approach by improving and strengthening the health systems. In response to this, health systems in several countries have been undergoing a transformation process and new initiatives have been introduced to make the health system more efficient, effective and responsive. In India too most states have gone ahead in this trajectory in order to make public health systems more efficient, accountable to community, transparent in functioning and responsive to public needs. This course highlights discussed the important components of the health system (the WHO Framework) and discusses the different reforms processes that have been introduced both at the national and state level. Some of these reform initiatives are discussed in details to understand their merits and demerits and to critically assess the need for evidence-based reforms.

Learning Objectives

1. To understand the meaning of health systems both in scope and typology
2. To identify the different components of health system and appreciate their role in health care delivery
3. To understand the need for health sector reforms and appreciate the context in which reforms were introduced
4. To understand different components of health sector reforms with a critical appraisal of them
5. To gain a critical insight into effectiveness of various reform strategies and processes involved in introducing reforms at different levels of health care system

Content areas

Lecture No	Lecture Topics	Activity
1	Introduction to Health Systems and the building blocks of a Health System	Lecture
2	Understanding the individual components: Part 1 Human Resources in Health	Lecture
3	Understanding the individual components: Part 2 Service Delivery: Health care at low cost	Lecture
4	Introduction to Health Sector Reforms	Lecture
5	Case study on a reform process: First Referral Units	Discussion

Course grading scheme

Internal Evaluation

ACTIVITIES	%
Class Participation	20
Individual Assignment	30
Module exam	50

Course resources

Recommended Readings:

1. Anand, Sandip, Collaborations in Reproductive Health Care Sector and Meta Organizational Challenges
2. Ashtekar Shyam, 'The National Rural Health Mission: A Stocktaking', Economic & Political Weekly September 13, 2008:23-26
3. Bajpai, Nirupam et al., Scaling Up Primary Health Services in Rural India CGSD Working Paper No. 29, Center on Globalization and Sustainable Development, The Earth Institute at Columbia University www.earth.columbia.edu November 2005
4. Das, Abhijit, Comment: Public-private partnerships for providing healthcare services, Indian Journal of Medical Ethics, Oct-Dec 2007(4)
5. Economy Watch, Millennium Development Goals, India Country Report- 2005, http://www.Economywatch_com.htm
6. Gopinathreddy, M., et al, Politics of Pro-poor Reform in the Health Sector Primary Healthcare in Tribal Areas of Visakhapatnam, Economic and Political Weekly, February 4, 2006: 420-26

7. Government of Uttar Pradesh, Department of Planning, Note on Health Sector in Uttar Pradesh, December, 2005
8. Govt of India, MOHFW, Health Sector Reforms in India- Initiatives from Nine States
9. Govt of India, National Rural Health Mission (2005-2012) Mission Document, Government of India, New Delhi
10. Govt of India, NRHM Common Review Mission (Draft), MOHFW, Government of India, New Delhi
11. Govt of Madhya Pradesh, Madhya Pradesh Health Sector Reform Programme: Programme Memorandum, Govt of Madhya Pradesh, Government of India, DFID, UK, May 2007
12. Govt. Of India, MOHFW, National Health Policy - 2002
13. Govt. Of India, Planning Commission "Chapter 2.8: Health", Tenth Plan document
14. Govt. Of India, Planning Commission, Report of the Committee on India Vision 2020, New Delhi, December 2002
15. Gupta, Devendra B., & Gumber, Anil, 'Decentralisation: Some Initiatives in Health Sector', Economic and Political Weekly February 6, 1999: 356-362
16. Gwatkin, Davidson R. Are Free Government Health Services The Best Way to Reach to Poor? The International Bank for Reconstruction and Development / The World Bank Washington, DC, 2004
17. Gwatkin, Davidson R., Reducing Health Inequalities in Developing Countries, The World Bank, 2002
18. Hota, Prasanna, 'National Rural Health Mission', Indian Journal of Pediatrics, Volume 73—March, 2006:21-23
19. Joshi, Seema, Impact of Economic Reforms on Social Sector Expenditure in India, Economic and Political Weekly January 28, 2006, pp: 358-65.
20. Katha Rakha Sarakar Campaign, Orissa, The Halfway Mark & State of realization of MDGs in Orissa, Katha Rakha Sarakar Campaign 2007
21. Krishnamurthy, Mekhala et al., Supporting Community Health and District Planning Strategies in Bihar, Institute for Financial Management and Research Centre for Development Finance Working Paper Series, May 2007
22. Kumar, Girish, 'Promoting Public-Private Partnership in Health Services', EPW July 19, 2002
23. Maheshwari, Sunil et al., 'Commitment among state health officials & its implications for health sector reform: Lessons from Gujarat', Indian J Med Res 127, February 2008, pp 148-153
24. Merrick, Tom, 'Reproductive Health and Health Reforms', World Bank Institute, April 2004
25. Mukhopadhyay, Alok, Public-Private Partnership in the Health Sector in India, 333-344
26. Narayana, Delampady, Adjustment and Health Sector Reforms: the Solution to Low Public Spending on Health Care in India? IDRC
27. Narayana, K. V., 'Changing Health Care System', Economic and Political Weekly March 22-29, 2003:1230-1241
28. Nishtar, Sania, 'Public – private 'partnerships' in health – a global call to action', Health Research Policy and Systems July 2004, 2:5
29. Peters, David H. Et al., Better Health Systems for India's Poor: Findings, Analysis, and Options, The World Bank, Washington DC, 2002
30. Radwan, Ismail, India - Private Health Services for the Poor: Policy Note, Washington, DC: The International Bank for Reconstruction and Development / The World Bank, 2005.

31. Ramachandran, Vimala, A perspective on reforms, Seminar – Web Edition
32. Ruger, Jennifer Prah, 'The Changing Role of the World Bank in Global Health', American Journal of Public Health, 95/ 1 (Jan 2005): 60-70
33. Sarma, E. A. S., Social Sector Allocations, Economic and Political Weekly April 2, 2005, pp.1413-17
34. Sen, Gita et al., 'Structural Reforms and Health Equity A Comparison of NSS Surveys, 1986-87 and 1995-96', Economic and Political Weekly April 6, 2002:1342-1352
35. Standing, Hilary, Gender and equity in health sector reform programmes: a review. Health Policy and Planning, 12/1(1997):1-18.
36. World Bank, India: Sustaining Reform, Reducing Poverty, New Delhi:OUP, 2003
37. Yazbeck, Abdo S., and Peters, David H., Health Policy Research in South Asia: Building Capacity for Reform, The World Bank, 2003

Financial Management

Course overview

Health Care Professional working in the field may come across the opportunity to manage Health Care Projects independently. One critical managerial skill needed in managing a project independently is the basic skill in financial management. It is, therefore, essential to acquaint the participants of Post Graduate Diploma in Public Health Management (PGDPHM) with basic concepts of Financial Management. For better understanding in Financial Management, it is imperative for the participants to understand the basic concepts of accounting, costing and capital investment decisions, etc. The perspective of the course will be exclusively of not-for-profit organizations. However, some standard readily available case studies may be used, which are of commercial organizations, mainly for conceptual understanding.

The mode of teaching is entirely participatory and all the participants are expected to participate during the sessions and in the discussions. Class participation will carry 10% weightage in the course evaluation. It is expected that the participants should read the pre-reading material that will be circulated to them in advance and come fully prepared for the class.

There will be short quizzes beginning from day 2 of the course. These quizzes will be used, mainly to check the level of understanding of the concepts by the participants and to redesign subsequent session plans, if need be, based on the overall performance of the class.

The course content will broadly include the following:

1. Fundamental Concepts of Financial Management
    a. Types and nature of expenses
    b. Budgeting
    c. Cash Flow Projections and Cash Flow management
    d. Capital Investment Decisions and Return on Investments
2. Financial Accounting: Theory and Practice
    a. Language of Accounting
    b. Concepts and Fundamentals of Accounting
    c. Financial Statements preparation
    d. Interpretation of Financial Statements

3. Cost Accounting
    a. Concept of Break-even
    b. Types and nature of Costs
    c. Allocation of Costs
    d. Variance Analysis
4. Project Finance and Grant Management
    a. Project Budgets
    b. Grants and Sub-Grants
    c. Project Expenditure Statements
5. Audit and Legal Framework
    a. Concept and Types of Audit
    b. Overview of Legal Framework and Statutory Compliances

Day	Content
1	Introduction to Financial Management Types and Nature of Expenses
2	Concept of Budgeting and Cash Flow Projections
3	Language of Accounting, Concepts and Fundamentals of Accounting
4	Fundamentals of Accounting: Accounting Mechanics
5	Preparation of Financial Statements
6	Capital Investment Decisions and Return on Investment
7	Concept of Break-even & Types and Nature of Costs
8	Cost Allocation and Variance Analysis
9	Project Finance and Grant Management
10	Audit and Legal Framework, Review and Recap

Course Evaluation

Class Participation	:	10
Quizzes	:	15
Assignments	:	15
Group Exercise &		

Presentation	:	20
Module Exam	:	40

Reference Material:

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